WE ♥ FILTRATION

viledon®

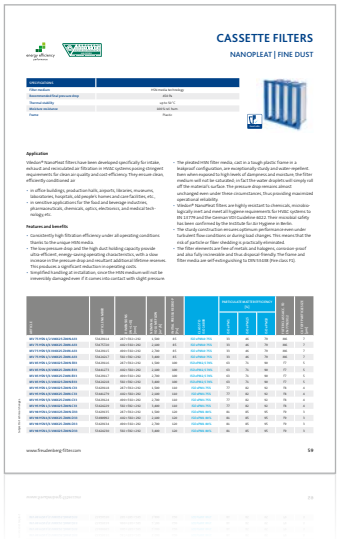
PRODUCT CATALOG 2021 / 2022

AIR AND LIQUID FILTRATION

FREUDENBERG
FILTRATION TECHNOLOGIES

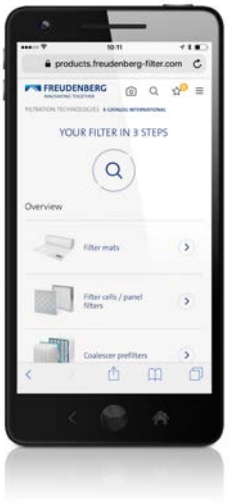
FREUDENBERG
INNOVATING TOGETHER

WHAT'S NEW AT A GLANCE


CASSETTE FILTERS

NANOPLEAT | FINE DUST

DIN EN ISO 16890-1:2017	Particulate air filters for general ventilation
EN 779:2012	Particulate air filters for general ventilation
EN 1822:2019 I ISO 29463	High efficiency air filters (EPA, HEPA and ULPA)
DIN EN 60335-2-69:2010	Dust removal equipment, air filtration in workplaces



QUICK GUIDE

We want to make choosing the right products as easy as possible for you. See at a glance how the catalog pages are organized.

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OVERVIEW OF FILTER CLASSES

Which filter is right for which application? Our overview of filter classes will give you the facts you need.

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VILEDON E-CATALOG

View and compare products on the move or directly request your personal product selection – our e-catalog makes it easy.

products.freudenberg-filter.com

Experience the exciting world of Freudenberg Filtration Technologies in two minutes – simply scan the QR code and watch our company video.

Always up-to-date:

www.freudenberg-filter.com

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www.youtube.com/user/FreudenbergFilter

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FREUDENBERG
INNOVATING TOGETHER

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SIMPLE AND DIRECT

TO ALL IMPORTANT INFORMATION

The Viledon® Product Catalog 2021/2022 makes it easy for you to select the right products. To make it simpler for you to get an overview of the various testing standards, we have divided the table sections into different colors. In addition, you will find numerous QR codes on the subsequent pages, which will take you directly to the corresponding product page in our e-catalog, provide information on our homepage or introduce you to a whole variety of other aspects from the world of filtration.

Notes on technical specifications

Filter groups according to ISO 16890
Measurements according to ISO 16890 were performed exclusively for our Viledon® filters. The results cannot be transferred to other filters.

Filter classes
Groups G to F according to EN 779:2012
Groups E to U according to EN 1822:2019 / ISO 29463

1 **Characteristics**
The most important information on the respective product at a glance.

2 **Applications, features and benefits**
Overview of the most important applications and features. Further information in our e-catalog.

www products.freudenberg-filter.com

3 **Gray table columns**
The gray columns show generally valid technical characteristics. This data applies to all test standards included in this catalog. In addition, you will also find technical characteristics according to the test standard EN 779:2012 for filter classes G 1 – F 9, test standard EN 1822:2019 and ISO 29463 for filter classes E 10 – U 17 and ISO 15 E – ISO 75 U respectively.

4 **Light blue table columns**
Technical characteristics according to the new ISO 16890 test standard, from ISO coarse to ISO ePM1.

5 **EUROVENT 4/21**
The EUROVENT logo at the top of the page indicates that the filter on this page has been awarded energy efficiency classes according to EUROVENT 4/21. Please feel free to contact our service team.

Simple and direct
Discover the products of Freudenberg Filtration Technologies online. Our digital e-catalog offers you fast, easy and constantly updated access to our products. Wherever you are. Anytime, anywhere. No matter which mobile device you use (smartphone, tablet, desktop PC).

www products.freudenberg-filter.com/en

SAMPLE PAGE

energy efficiency performance

EUROVENT CERTIFIED PERFORMANCE AIR FILTERS

5

CASSETTE FILTERS

NANOPLEAT | FINE DUST

1

SPECIFICATIONS	
Filter medium	HSN media technology
Recommended final pressure drop	450 Pa
Thermal stability	up to 50 °C
Moisture resistance	100 % rel. hum.
Frame	Plastic

2

Application

Viledon® NanoPleat filters have been developed specifically for intake, exhaust and recirculated air filtration in HVAC systems posing stringent requirements for clean air quality and cost-efficiency. They ensure clean, efficiently conditioned air

- in office buildings, production halls, airports, libraries, museums, laboratories, hospitals, old people's homes and care facilities, etc.,
- in sensitive applications for the food and beverage industries, pharmaceuticals, chemicals, optics, electronics, and medical technology, etc.

Features and benefits

- Consistently high filtration efficiency under all operating conditions thanks to the unique HSN media.
- The low pressure drop and the high dust holding capacity provide ultra-efficient, energy-saving operating characteristics, with a slow increase in the pressure drop and resultant additional lifetime reserves. This produces a significant reduction in operating costs.
- Simplified handling at installation, since the HSN medium will not be irreversibly damaged even if it comes into contact with slight pressure.
- The pleated HSN filter media, cast in a tough plastic frame in a leakproof configuration, are exceptionally sturdy and water-repellent. Even when exposed to high levels of dampness and moisture, the filter medium will not be saturated; in fact the water droplets will simply roll off the material's surface. The pressure drop remains almost unchanged even under these circumstances, thus providing maximized operational reliability.
- Viledon® NanoPleat filters are highly resistant to chemicals, microbiologically inert and meet all hygiene requirements for HVAC systems to EN 13779 and the German VDI Guideline 6022. Their microbial safety has been confirmed by the Institute for Air Hygiene in Berlin.
- The sturdy construction ensures optimum performance even under turbulent flow conditions or during load changes. This means that the risk of particle or fiber shedding is practically eliminated.
- The filter elements are free of metals and halogens, corrosion-proof and also fully incinerable and thus disposal-friendly. The frame and filter media are self-extinguishing to DIN 53438 (Fire class F1).

3 4

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
						ISO ePM1	ISO ePM2,5	ISO ePM10		
MV 75 HSN 1/2 V08X25-Z00N-A33	53429114	287×592×292	1,500	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 4/6 V08X25-Z00N-A33	53475720	402×592×292	2,100	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 5/6 V08X25-Z00N-A33	53429115	490×592×292	2,700	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 1/1 V08X25-Z00N-A33	53424217	592×592×292	3,400	85	ISO ePM10 75%	33	46	79	M6	7
MV 85 HSN 1/2 V08X25-Z00N-B33	53429116	287×592×292	1,500	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 4/6 V08X25-Z00N-B33	53441273	402×592×292	2,100	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 5/6 V08X25-Z00N-B33	53429117	490×592×292	2,700	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 1/1 V08X25-Z00N-B33	53424218	592×592×292	3,400	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 95 HSN 1/2 V08X25-Z00N-C33	53429118	287×592×292	1,500	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 4/6 V08X25-Z00N-C33	53441279	402×592×292	2,100	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 5/6 V08X25-Z00N-C33	53429124	490×592×292	2,700	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 1/1 V08X25-Z00N-C33	53424229	592×592×292	3,400	110	ISO ePM1 75%	77	82	92	F8	4
MV 98 HSN 1/2 V08X25-Z00N-D33	53429135	287×592×292	1,500	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 4/6 V08X25-Z00N-D33	53490992	402×592×292	2,100	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 5/6 V08X25-Z00N-D33	53429134	490×592×292	2,700	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 1/1 V08X25-Z00N-D33	53424230	592×592×292	3,400	120	ISO ePM1 80%	81	85	95	F9	3

Subject to technical changes.

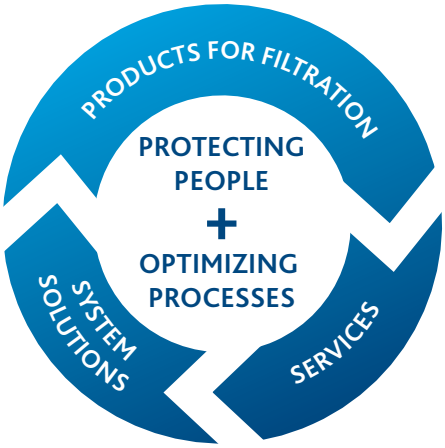
CUSTOMER-ORIENTED. INNOVATION-DRIVEN. VALUES-BASED.

PROTECTING PEOPLE, OPTIMIZING PROCESSES – THIS IS OUR ASPIRATION

In many industrial processes and always when it comes to protecting people, the filtration of air and liquids is essential. Filtration affects the quality of an end product, the productivity of a company and its contribution to environmental protection. That's why companies expect a great deal from filtration. That's why our customers expect a great deal from us. We are committed to providing filtration that protects people in the best and most reliable way possible. We support companies in achieving excellent results. It motivates us to develop solutions that make filtration an important success factor. It inspires us when, with our support, our customers protect the environment and natural resources, reduce their operating and repair costs, and improve process efficiency or quality of life.

"CUSTOMERS APPRECIATE OUR CONSULTING EXPERTISE AND OUR RELIABLE PRODUCT SOLUTIONS AND SERVICES. WE ARE GRATEFUL FOR THIS. IT INSPIRES US TO BE A VALUABLE PARTNER TO OUR CUSTOMERS."

Dr. Andreas Kreuter, Speaker of the Management Board



This is what we stand for

- Quality of life, health and safety
- Respect and responsibility for people and the environment
- Sustainable protection of natural resources
- Combining economic efficiency with social responsibility
- Continuously striving to make our customers more economically and sustainably successful through tailor-made products and filtration solutions

We achieve these goals through

- A complete service portfolio consisting of products, system solutions and service packages
- Convincing professional and consulting expertise
- Profound know-how in many industries and applications
- The knowledge and experience of more than 60 years in the filtration business

Discover more about Freudenberg Filtration Technologies

www **www.freudenberg-filter.com/en/company**

www **www.linkedin.com/company/freudenberg-filtration-technologies**

www **www.youtube.com/user/FreudenbergFilter**

DISCOVER THE WORLD OF FILTRATION

GROW WITH MANY DIFFERENT SOLUTIONS

Freudenberg Filtration Technologies consists of the three core segments “Automotive”, “Industrial” and “Living”. This is where experience and knowledge come together to develop our application-oriented filtration solutions.

World of Automotive

Freudenberg Filtration Technologies is one of the leading partners for automotive cabin air filters. As Number 1 on the market, our micronAir® cabin air filters protect vehicle occupants against particulate matter, bacteria and bad smells, thus increasing driving comfort and safety. Our portfolio of engine intake air filters makes internal combustion engines even more efficent and at the same time prevents damage to sensitive components. In addition, we support our customers in the development of alternative drive technologies with high-performance filters for e-mobility and fuel cell vehicles.

World of Industrial

Whether for turbomachinery and compressors, surface treatment technology, the food and beverage industry or other industries: the Viledon® brand offers complete solutions and services for all aspects of industrial air and liquid filtration. The developments and concepts we create are always based on the latest scientific findings and many years of practical experience. This enables us to produce high-quality filter elements and system solutions that make companies and their plants more economically efficient and sustainable.

World of Living

Indoor air quality is often many times worse than outside air. Freudenberg filter media effectively protect you from dust, germs and unpleasant odors in the office and at home. Together with experienced partners, we develop high-performance filters for household and office equipment as well as air filtration systems, thereby helping to protect health and improve the quality of life.

OUR FIELDS OF EXPERTISE

Agricultural vehicles
Air pollution control
Cabin air filters
Clean rooms and pharma
Engine intake air filters
Food and beverage industry
Fuel cell filters
Gas phase filtration
Gas turbines and compressors
HVAC systems
Industrial painting
Liquid filtration
Mining
Offices and living spaces
Wastewater treatment

YOUR WORLD OF INDUSTRIAL FILTRATION

DISCOVER OUR VILEDON SOLUTIONS AND SERVICES FOR CLEAN AIR AND LIQUIDS

CLEANROOMS & PHARMA

GAS TURBINES & COMPRESSORS

POWER GENERATION, OIL AND GAS OFFSHORE/ONSHORE, COMPRESSORS, DIESEL- AND GAS ENGINES

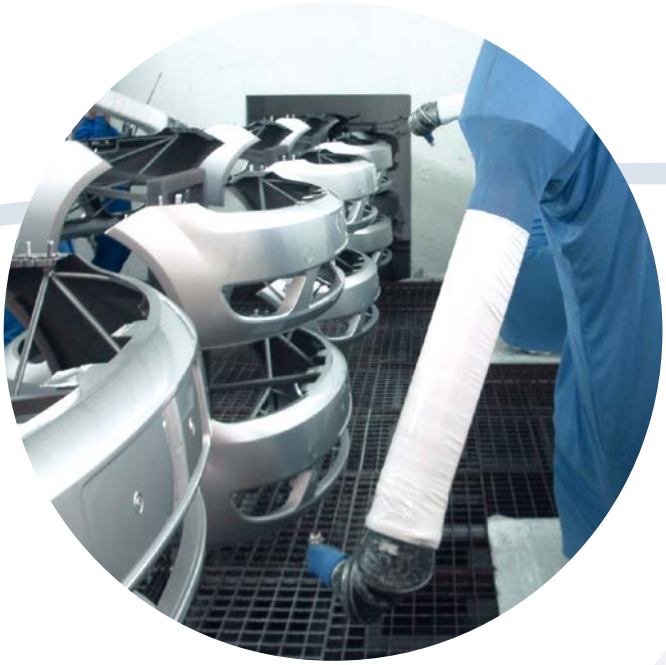
AIR POLLUTION CONTROL

GAS PHASE FILTRATION

CORROSION CONTROL, ODOR CONTROL, VOC CONTROL

INDUSTRIAL PAINTING

CARS, PARTS, SPRAY BOOTHS,
SPRAY WALLS



LIQUID FILTRATION

FOOD & BEVERAGE

DAIRY PRODUCTS, COOKED CHILLED FOOD,
COOKED MEATS, FRESH PREPARED FOOD, BAKERY
PRODUCTS, CONFECTIONERY

WATER SOLUTIONS

FLEXIBLE CONSULTING THAT TAKES YOU FURTHER

THE VILEDON FILTERCAIR SERVICE PROGRAM

Quality, safety and efficiency are decisive factors in determining your competitiveness. A lot can be achieved with professional air quality management. No matter what industry or application, whether room or process air – Viledon® filterCair Services identify optimization potentials and offer the right solutions. For the cleanest air at work, efficient processes and lower costs.

The Viledon® filterCair air quality management system is designed on a modular basis to support you with the services you need. Simply combine the individual modules according to your specific needs. Consulting, analysis, reporting and recommendations for action – all included. Inspection, monitoring, servicing and maintenance – everything according to your needs. Plus warranties and guaranteed fixed costs. We also offer customized service contracts for complete air quality management, including all necessary filters and individually tailored services.

THE VILEDON FILTERCAIR TEAM – OUR EXPERTS AT YOUR SIDE

Take advantage of the experience of our specialists to ensure hygienically clean air in the workplace and to optimize your processes. They will assess the current situation on site and identify measures for improvement. In the process, as well as hygiene, risk and quality factors, you are constantly keeping an eye on efficiency and environmental friendliness.

AIR QUALITY MANAGEMENT THAT ADAPTS TO YOUR NEEDS

Our services are as multifaceted as their areas of application: Sometimes, the focus is on people's health, other times on quality assurance in production or the corrosion protection of materials and components.

Whether in the field of surface treatment technology or gas phase filtration, air conditioning and ventilation systems or applications in the pharmaceutical, food and beverage industries – we offer the ideal package of service modules for every application. For example, the "Basic" module, which includes an analysis of the current state of a process or basic inspection of a system. Supplementing this, the "Energy Efficiency" module provides support in the form of ventilation technology consulting, including an energy inspection and recommendations for optimized energy consumption. With the "Workplace Analysis" module, the focus is again on air quality and the verification of limit values.

Scan the QR code and find out more about Viledon® filterCair and the range of different service modules we offer!

SERVICE MODULES TO PROTECT AGAINST GERMS AND VIRUSES IN SENSITIVE INDUSTRIES

With Covid-19, the topic of infection protection has been brought into sharp focus. For particularly sensitive areas such as the medical, pharmaceutical, food and beverage industries, the challenge is enormous. As well as maintaining the highest standards of hygiene, it is also important to minimize the risk of viruses and germs spreading. For this reason, two Viledon® filterCair service modules have been developed specifically to detect SARS-CoV-2 and contain the risk of infection.

The advantages of Viledon® filterCair

- Compliance with the highest quality and hygiene standards
- Increased plant and process safety
- Positive energy balance over the long term
- Optimized production processes
- Increased plant efficiency and availability
- Audit-compliant documentation and reduced organizational complexity
- Customer-specific, innovative and individually adapted solutions

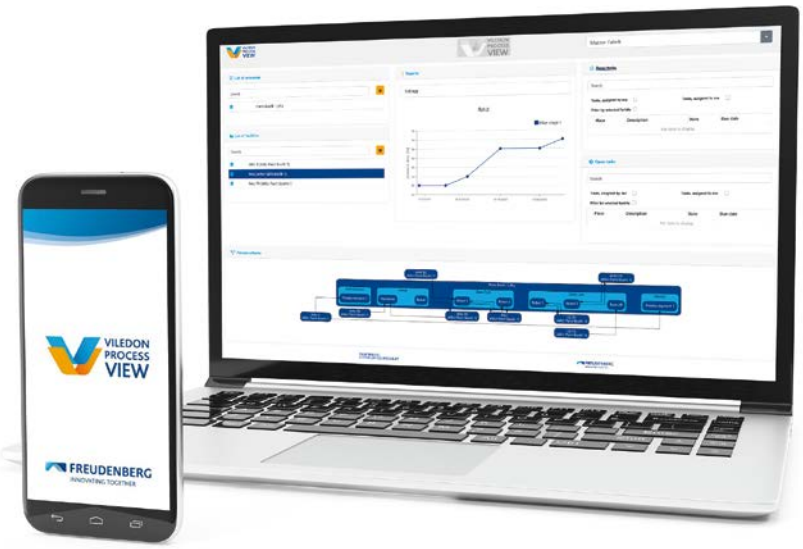
System check Covid-19 Basic
includes the basic check of the ventilation system for Covid-19 as well as microbiological samples for the identification of germs, mold and yeast fungi.

System check Covid-19 + hygiene monitoring VDI 6022
includes the basic check of the ventilation system for Covid-19 as well as microbiological samples for the identification of germs, mold and yeast fungi. On top of that, we carry out a hygiene inspection according to the German VDI 6022 guideline for hygienic air quality in ventilation systems.

SCANNING GIVES YOU A CLEAR OVERVIEW

EFFICIENT MONITORING OF FILTER PERFORMANCE WITH VILEDON PROCESS VIEW

In energy-intensive industrial painting processes, inefficient filter systems quickly have an impact on operating costs. Moreover, poor filter performance can lead to paint defects and particle inclusions. Viledon® Process View offers a better solution. As part of the Viledon® filterCair service portfolio, this versatile data management system has been developed to enable customers to keep an eye on the overall process at all times – and to intervene quickly where necessary.



Viledon® Process View makes digital documentation of the filter system performance much easier and more convenient. One of the key components is the new "Vi.P. View" app. Scan the QR code, enter or retrieve data via the app, and you're done. Using a QR code on the installation, you always have access to essential data on the filters that are being used. Alongside technical information on filter stages and elements, you can also store and view all information on filter checks and maintenance in the data management system. Measurement values such as pressure differences or air velocities, as well as information on previous filter changes, give you a complete overview and provide a sound basis for determining the condition of the system.

Increased plant efficiency, lower maintenance costs

During testing, our trained Viledon® filterCair team or your internal technician will store the measured data in the Viledon® Process View data management system directly on site. This information will then be immediately accessible and can be viewed and analyzed accordingly. The benefit to you is that inefficient filter elements can be quickly detected and replaced in the course of condition-based maintenance. Weak points can be identified and eliminated. In this way, the data management system ensures a stable overall process. Thanks to efficient evaluation, response time and maintenance quality are improved while filter service life and energy consumption are optimized. Talk to us directly and find out more.

THE VILEDON SERVICE PROGRAM

A PARTNERSHIP FOR YOUR LONG-TERM SUCCES

As well as high-quality filter solutions, our portfolio also includes a comprehensive range of services. In this way, we help our customers to make optimum use of filter systems in every respect.

SERVICES AT A GLANCE

- **Personal, expert on-site consultation**
  Our network of filtration consultants includes numerous subsidiaries and distribution partners worldwide.
- **Reliable delivery service**
  Security of supply is an essential component of our range of services.
- **More than 10,000 articles in a comprehensive filter program**
  You will find the right product for every requirement in our range.
- **Tailor-made filtration solutions on request**
  Individual solutions lead to better results. We work with you to develop them.
- **Accessories**
  A wide range of extras support the effective use of our high-quality filters.
- **Viledon® Academy**
  Through training courses and guided tours, we pass on practical insights and theoretical background knowledge on all aspects of filtration.
- **Filter measurement technology**
  Using state-of-the-art technology, we test our filters according to standardized performance tests, national and international norms. In addition, we carry out more stringent testing in our own special tests.

Our product portfolio includes high-quality accessories, e.g.:

- Mounting frame made of stainless steel or galvanized sheet steel with force-fit spring system and rubber plug-in seal
- Differential pressure gauges: indicators and switchgear for simple to the most demanding applications
- Rotary nozzle systems for effective cleaning of filter cartridges
- Pressure surge reflectors for optimizing pulse-jet cleaning
- Accessories for HEPA filters: hood modules and ceiling air outlets

The direct route to your Viledon® service team Weinheim (Germany)
Our helpful and reliable contact staff are available to assist you from 08:00 to 17:00 (CET):

+49 (0) 6201 80-6264
+49 (0) 6201 88-6299
viledon@freudenberg-filter.com

To find the customer service contact details for your region, please visit our website. Our website offers you the easiest possible access to current product information, technical data sheets and much more about filtration.

www.freudenberg-filter.com

If you would like to contact us directly, simply scan the QR code and send us an email.

MAXIMUM EFFICIENCY AROUND THE CLOCK

INTELLIGENT FILTER CLEANING WITH PULSEWATCH

Freudenberg PulseWatch is the first plant control system to regulate the cleaning of surface filters in dust removal systems on a condition-based and fully automatic basis. This saves on expensive compressed air, reduces maintenance costs, and ensures higher plant availability – around the clock.

For a dust removal system to work reliably, the dust on the filter elements needs to be regularly removed using compressed air. The optimum time for cleaning is determined by the pressure drop. Once a defined threshold value has been reached, the filters ought to be freed from dust. In reality, however, plants are often cleaned at fixed intervals. This is where Freudenberg PulseWatch steps in and uses intelligent control to ensure maximum efficiency in the dust removal process.

Contribution to occupational health and safety

Intelligent measuring system

Intelligent filter cleaning

This is how it works: PulseWatch permanently monitors the differential pressure and thus the current status of the filter elements. In doing so, it automatically adjusts the cleaning cycles according to the latest developments. The advantage of this is that cleaning is flexible and can be performed as required. Impending filter blockages are detected early on, and expensive continuous compressed air cleaning is avoided. This results in a significantly longer service life and availability of the filter elements while simultaneously reducing energy consumption and lowering operating costs.

PULSEWATCH PLUS POINTS FOR PLANT OPERATORS

- Lower maintenance costs thanks to longer filter service life
- Increased productivity through greater system availability
- Improved cost-effectiveness as a result of lower energy consumption
- Universally deployable, even in harsh environments
- Touchscreen display in different languages
- Measuring intervals and alarm thresholds can be individually configured

Scan the QR code to find out more about Freudenberg PulseWatch!

SAFE, WHEN IT MATTERS MOST

THE HIGH TEMPERATURE PREFILTER DUO SAFE HT

High temperatures leave it cold, because that's exactly what it is made for – the Viledon® Duo Safe HT high-temperature prefilter. Its favored field of application is in heavily loaded, highly critical air recirculation units such as those found in the paint drying processes of the automotive industry. This is where the robust filter demonstrates its full strength as a protective shield for the down-stream main filter. This allows significantly longer service lives to be achieved for cost-efficient painting operations.

Paint drying processes are generally associated with great heat. At up to 250 degrees Celsius, this places correspondingly high demands on the filter elements. Furthermore, condensates from tin-based dip coatings can contaminate the components. None of this is a problem for the robust Duo Safe HT. As an upstream filter stage, it provides reliable protection and can be changed when heavily loaded without the need for time-consuming removal of the main filter behind it.

Highly stable construction, easy to change

No tools required. For combining with a HiTemp cassette filter, the Viledon® Duo Safe HT has 4 metal tabs for easy clip-on mounting. Thanks to its heat-resistant aluminum frame and the glass fiber filter medium pleated using minipleat technology, the filter meets the most stringent requirements in terms of air purity, process reliability and cost-efficiency.

ROBUST HIGH TEMPERATURE TALENT WITH MANY ADVANTAGES

- Greater cost-efficiency thanks to significantly longer service life of the main filter
- Reliable protection against extreme dirt loads
- Time and cost savings due to easy replacement
- Meets the highest requirements of surface treatment technology

Scan the QR code to find out more about the Viledon® Duo Safe HT!

MODULAR “CLIP-ON” SYSTEM

ADDITIONAL FILTER STAGE WITHOUT MAJOR EFFORT

Viledon® modular filter systems are used in the supply, exhaust and recirculation filtration of ventilation systems. Thanks to the innovative “clip-on” plug-in system, different filter types can be combined as modules in different ways to achieve maximum performance. The basis filters are supplied with connecting pins (RB types).

Two filters connected using the “clip-on” system.

THESE FILTERS CAN BE FLEXIBLY COMBINED WITH EACH OTHER:

“CLIP-ON” FILTER
with connecting caps

hydroPack

hydroMaxx

MaxiPleat & MaxiPleat Box Type

MVPGT (reverse)

can be combined with

BASIS FILTER
with connecting pins

MaxiPleat

eMaxx

MVP & MVPGT + MVPGT-L

NanoPleat (MV HSN)

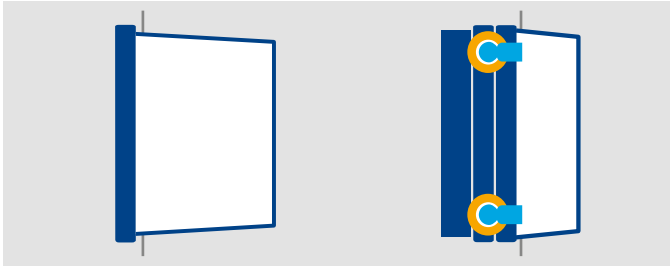
UPGRADE YOUR SYSTEM

1st filter stage with pocket filter

2nd filter stage with MaxiPleat

EXAMPLE FOR A TWO-STAGE FILTER SYSTEM

- Expansion by one filter stage is often not possible for reasons of space.
- The “clip-on” filter system enables a space-saving upgrade where space is limited.
- This saves costs during redesign because less space is required.



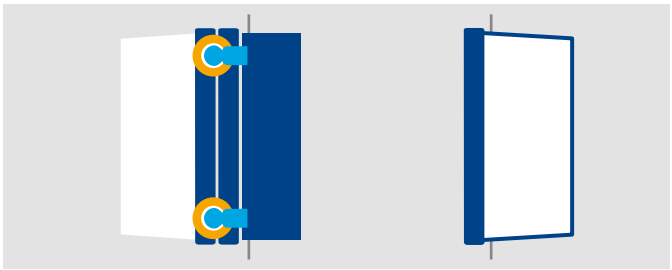
1st filter stage with pocket filter

2nd filter stage with MaxiPleat (reverse)

3rd filter stage with NanoPleat (pin)

EXAMPLE 1: UPGRADE FROM TWO- TO THREE-STAGE FILTER SYSTEM WITH “CLIP-ON” IN THE 2ND FILTER STAGE

- “Two in One”: upgrading the system without modification. If space is limited, an additional filter stage can be added.
- Easy filter change.
- Highest purity by upgrading to EPA level / ultra-fine filter stage.



1st filter stage with hydroMaxx (reverse)

2nd filter stage with MaxiPleat (pin)

3rd filter stage with eMaxx

EXAMPLE 2: UPGRADE FROM TWO- TO THREE-STAGE FILTER SYSTEM WITH “CLIP-ON” IN THE 1ST FILTER STAGE

- Improved protection against moisture from outside with coalescer prefilter.
- Easy filter change.
- Ideal protection against corrosion and deposits is provided by a combination of hydroMaxx coalescer and MaxiPleat cassette filters.
- “Two in One”: upgrading the system without modification. If space is limited, an additional filter stage can be added.

Note:

- For installation, the base filter with black connecting pins is inserted into the existing mounting system.
- The “clip-on” filter can be attached to the built-in base filter.
- The connection pins anchored in the base filter can no longer be removed. The attached prefilter can be removed and replaced.
- The hydroMaxx or hydroPack can be installed on a pocket filter using an adapter (Art. No. 53541191).

If you would like to learn more about our “clip-on” system, simply scan the QR code and watch the video on our YouTube channel.

If you have any questions about possible combinations, please contact us. Our service team will be happy to advise you.

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e.FFECT
electronic Freudenberg Filter Efficiency Calculation Tool

ACHIEVE PERFORMANCE GAINS

E.FFECT MAKES POTENTIAL INSPIRATION FILTRATION VISIBLE

Multi-stage intake air filter systems protect gas turbines and compressors against corrosion-related performance and efficiency losses. The more specific the configuration of the filter elements, the more efficiently and effectively the system works. We use the electronic Freudenberg Filter Efficiency Calculation Tool (e.EFFECT) analysis software to determine and analyze possible solutions based on specific parameters. The best thing is that you can see and compare the financial e.FFECT immediately.

Based on the results of the measurements, you will receive a report that clearly shows and compares the monetary savings potential of the various configurations. This allows you to see immediately where their advantages lie and which solution offers the greatest performance gain.

Effectively avoid power losses in gas turbines and compressors

Dust, moisture and other particles in the intake air cause deposits (fouling) on the blade surfaces of gas turbines and compressors. They can also cause corrosion damage in the hot gas area. A multi-stage intake air filter system can prevent wear and the associated reduction in performance. In this context, the question is which filter configuration is the most efficient and economical solution in the respective situation. This is exactly the question we developed e.EFFECT to answer.

Discover and compare potentials

For the first time, e.FFECT makes it possible to evaluate the performance values of different filter configurations for supply air filtration in relation to the actual overall plant situation. For this purpose, the simulation tool depicts the reality of the installation in a digital model, calculates the effects of each respective filtration solution and enables them to be compared.

More e.FFECT is impossible:

- Location and plant-optimized filtration solution
- Full transparency and comparability thanks to structured calculation report and final report
- Reduced downtime and lower maintenance of the equipment
- Reduced total costs of ownership (TCO) through individually optimized solutions
- Improved profitability
- Safe production processes

Scan the QR Code to find out more about e.FFECT!

Contact our experts to use e.FFECT to analyze and optimize your intake air system.

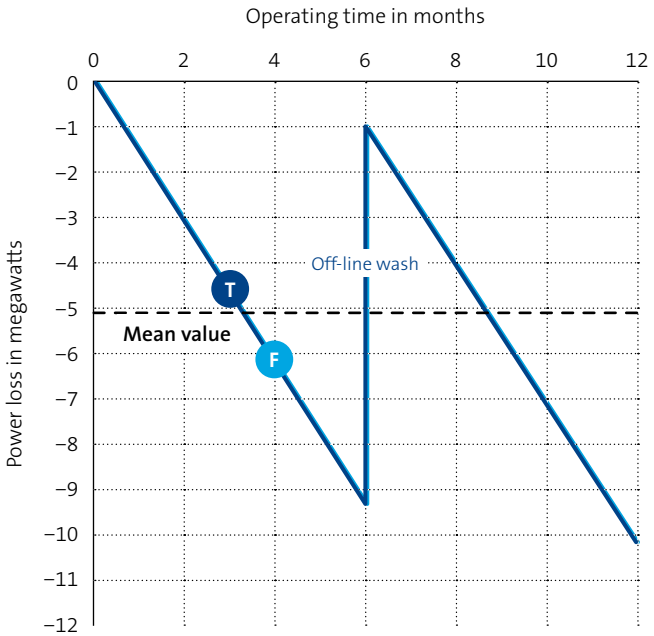
e.FFECT_Turbo@freudenberg-filter.com

Comparative data-based analysis provides the facts

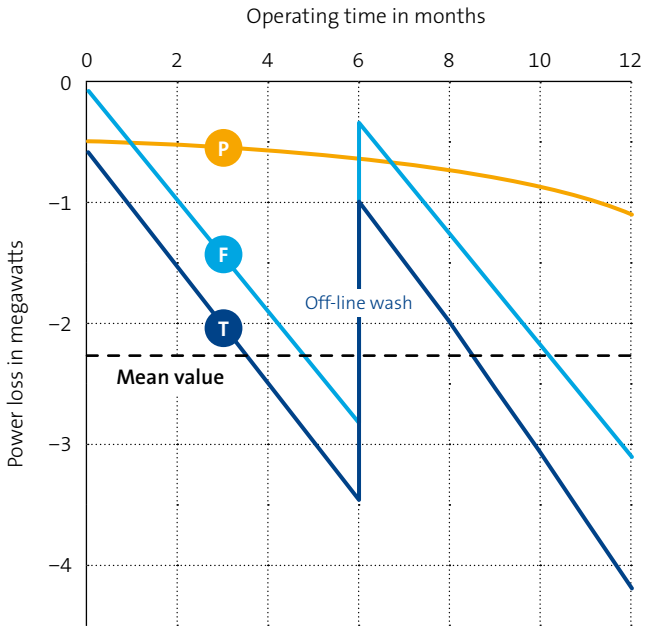
The four illustrations below show the different power losses depending on the use or configuration of the filter system. You can see at a glance that in figure 4 (result with e.FFECT-optimized filter system) the calculated average value achieves the best power gain.

- Total (T) = Total loss of power output caused by fouling and filter pressure drop
- Fouling (F) = Power loss of the gas turbine caused by fouling on the blades
- Pressure drop (P) = Power loss of the gas turbine caused by filter pressure drop
- Mean value of power loss

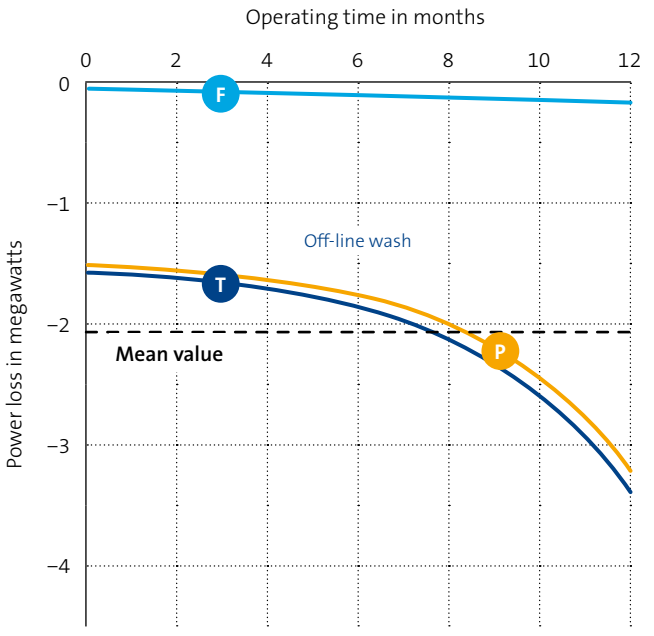
1: Power loss without filter system



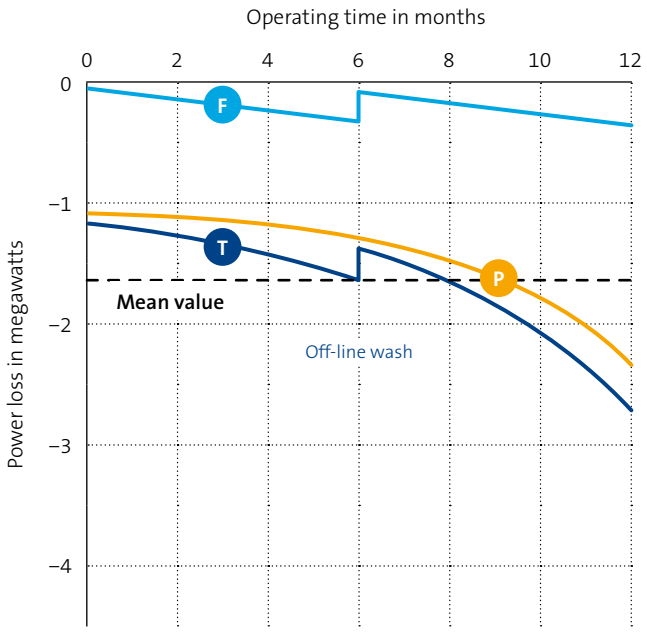
2: Power loss with conventional, 2-stage filter system



3: Power loss with multi-stage ultra-fine filter system at high EPA level



4: Power loss with e.FFECT-optimized filter system

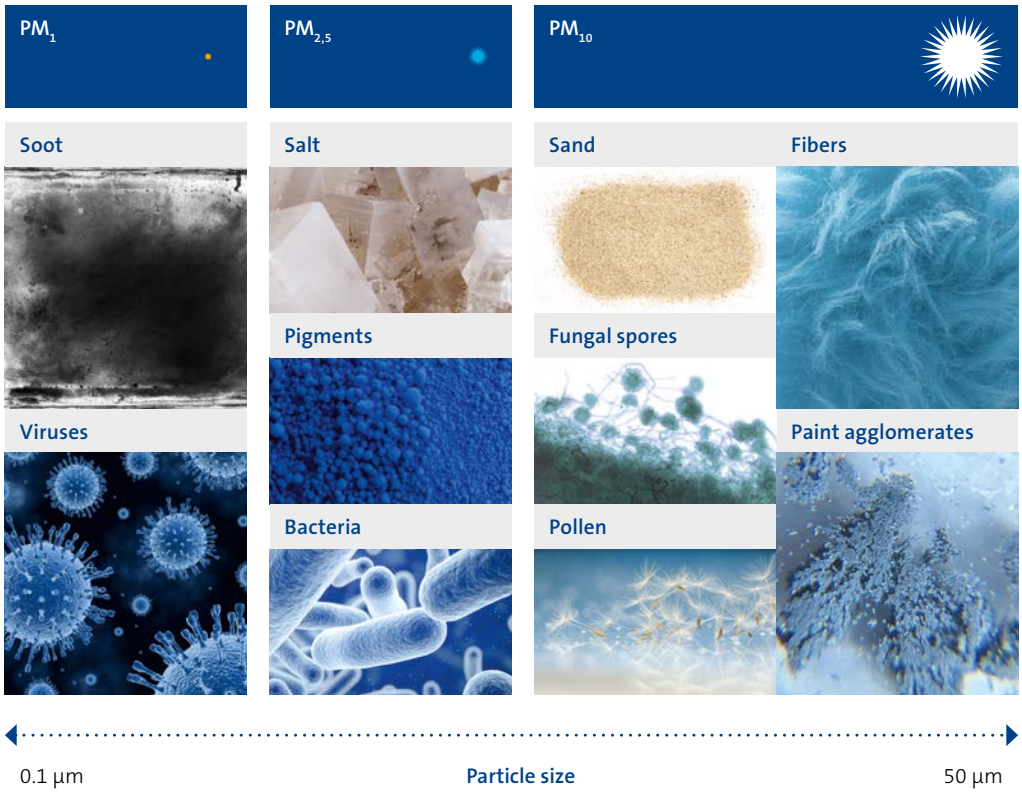


GREATER CLARITY FOR MORE EFFICIENT SOLUTIONS

ISO 16890 HELPS ENABLE PLANT-OPTIMIZED AIR FILTRATION

Whether hygiene-sensitive areas in food processing or production halls in heavy industry – the choice of the optimal filtration solution is always based on the individual process requirements. In this context, the particulate matter loads of the local outside air or intake air are central parameters for the selection of filters. Thanks to the new ISO 16890 test standard, the performance of the respective filter elements is now more transparent and closer to reality. In other words, multi-stage filter solutions can be accurately calculated to meet specific requirements.

Since 2018, the internationally valid ISO 16890 standard has enabled the performance of air filters to be differentially evaluated. Separation efficiencies are determined on the basis of the four particulate matter classes ISO ePM10, ISO ePM2,5, ISO ePM1 and ISO coarse over a broad particle spectrum. For a filter to be assigned to a category, it needs to be able to separate at least 50 percent of the corresponding particle size. The separation efficiency is specified to within 5 percent. A filter with ISO ePM1 60%, for example, separates more than 60 percent of all particles with a diameter of less than 1 micrometer, such as soot or viruses. This means you can see immediately what the filter is capable of.



Scan the QR code to find out more about the ISO 16890 test standard!

Fine dust, viruses and more – the danger is floating in the air

Whether fungal spores, bacteria or viruses, the air is full of different particles. Some dusts can be seen with the naked eye, while many viruses are not even visible under normal microscopes. The latter group in particular has come into focus in 2020. In areas with high hygiene requirements and simultaneously high contamination risks such as hospitals, medical or pharmaceutical companies, high-performance filter solutions are essential to protect the health of patients and employees alike.

Basic recommendations based on EUROVENT 4/23 (2018)

EUROVENT 4/23 has developed proposals for the minimum separation efficiency of air filtration systems depending on the outdoor air conditions and the specific application requirements. According to EN 16798-3, the three ODA categories "Outdoor Air" for the outdoor air and the five SUP categories "Supply Air" for the intake air quality are taken as output variables. This results in orientation values that apply independently of the number of filter stages in the system.

Our experts will be happy to provide you with individual advice and calculate your ideal filter solution with the aid of e.FFECT (see pages 18/19).

			SUPPLY AIR				
OUTDOOR AIR			SUP1*	SUP2* MEDIUM	SUP3** BASIC	SUP4	SUP5
			$PM_{2,5} \leq 2.5$ $PM_{10} \leq 5$	$PM_{2,5} \leq 5$ $PM_{10} \leq 10$	$PM_{2,5} \leq 7.5$ $PM_{10} \leq 15$	$PM_{2,5} \leq 10$ $PM_{10} \leq 20$	$PM_{2,5} \leq 15$ $PM_{10} \leq 30$
CATEGORY	$PM_{2,5}$	PM_{10}	ePM_1	ePM_1	$ePM_{2,5}$	ePM_{10}	ePM_{10}
ODA 1	≤ 10	≤ 20	70 %	50 %	50 %	50 %	50 %
ODA 2	≤ 15	≤ 30	80 %	70 %	70 %	80 %	50 %
ODA 3	> 15	> 30	90 %	80 %	80 %	90 %	80 %

Recommended min. ePM_x filtration efficiencies depending on ODA and SUP category.
Annual mean PM_x values in µg/m³
* Minimum filtration requirements ISO ePM1 50% refer to a final filter stage
** Minimum filtration requirements ISO ePM2,5 50% refer to a final filter stage

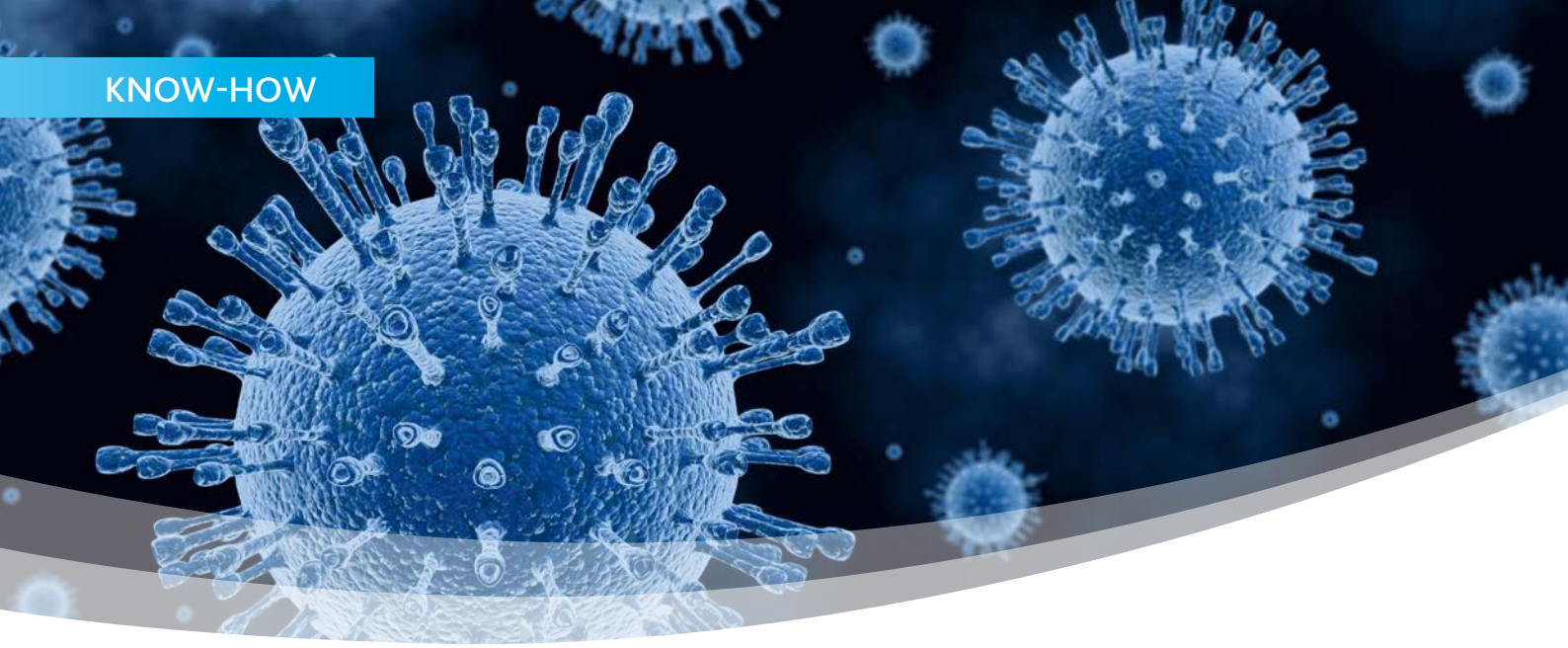
SUP1: Applications with high hygiene requirements e. g. hospitals, pharmacy, electronics and optical industry, supply air for cleanrooms, food & beverage (zones H).

SUP2: Applications with medium hygiene requirements e. g. in the production of food and beverage (zones M).

SUP3: Applications with normal hygiene requirements, e. g. in the production of food and beverage (zones B).

SUP4: Applications without hygiene requirements e. g. production areas in the automotive industry.

SUP5: Production areas in heavy industry e. g. steel mills, smelters, (laser) welding plants.



WELL PROTECTED AGAINST VIRUSES AND GERMS

PREVENTING CONTAMINATION AND DISEASES WITH AIR FILTER CONCEPTS AND FACE MASKS

The pandemic triggered by the novel coronavirus SARS-CoV-2 has fundamentally changed our view of virus infections and hygiene measures. The health protection of people has become a priority in almost all areas of our lives. Efficient air filter concepts and face masks help to contain the spread of viruses and minimize the number of new infections.

Viruses such as the coronavirus are well below 1 µm in size and thus belong to the PM1 particle fraction. They disperse through the air – for example in droplets < 5 µm or in even smaller aerosols – and can thus be transmitted from person to person. This so-called droplet infection is also one of the main sources of infection in the case of Covid-19. Air quality therefore also plays a central role in combating a pandemic. Especially in closed rooms, filtration systems help to keep the air clean. In areas with high hygiene requirements or increased contamination risks, such as hospitals, public transport or the food and beverage industry, individually optimized, multi-stage filter concepts are advisable to ensure the health and safety of patients and staff in the long term.

PROTECT THE HEALTH OF EMPLOYEES WITH HYGIENIC AIR QUALITY IN ACCORDANCE WITH VDI 6022

Ventilation and air conditioning systems (HVAC) are intended to ensure air quality that is beneficial to the health of people. Guidelines for hygienic operation and air quality are provided by the Association of German Engineers in the VDI 6022 guideline "Room Air Technology, Room Air Quality". The goal is to provide maximum protection for all individuals. The guideline provides clear recommendations with regard to hygiene and air quality – from planning, production and implementation to operation and maintenance of the filter system.

In view of Covid-19, the supply of people with healthy indoor air and a physiologically favorable indoor climate in terms of VDI 6022 has once again gained in importance. For example in hygienic areas of the food and beverage industry or in hospitals and laboratories. Multi-stage filter concepts, which efficiently ensure a high level of air purity with the help of coordinated filter stages, offer effective protection when professionally installed and regularly maintained. The two new Covid-19 hygiene modules from Viledon® filterCair ensure even greater safety in sensitive areas (see page 11).

Scan the QR code to find out more about VDI 6022 and employee protection in HVAC systems!

SHOWING RESPONSIBILITY – WITH HIGH-QUALITY MEDICAL FACE MASKS FROM GERMANY

In everyday life, the collective wearing of medical face masks has proven to be an effective means of fighting a pandemic. In some areas they are even compulsory. Viral droplets that are released into the air when breathing, speaking or coughing are largely intercepted by the masks. This reduces the risk of becoming infected and infecting other people with a virus.

As a global nonwovens manufacturer, Freudenberg has committed itself to producing high-quality medical face masks – Made in Germany. The soft, three-layer material and the individually adaptable shape ensure that the masks are comfortable to wear. In addition, the medical face masks are LABS-compliant in accordance with the specifications of VDMA 24364 and can be worn in industrial paint stores, for example.

Thanks to CE certification, the masks are also approved as medical products and are suitable for use in medical facilities as a temporary mask.

If you are interested in a free sample and quotation, scan the QR code.

Supported by:

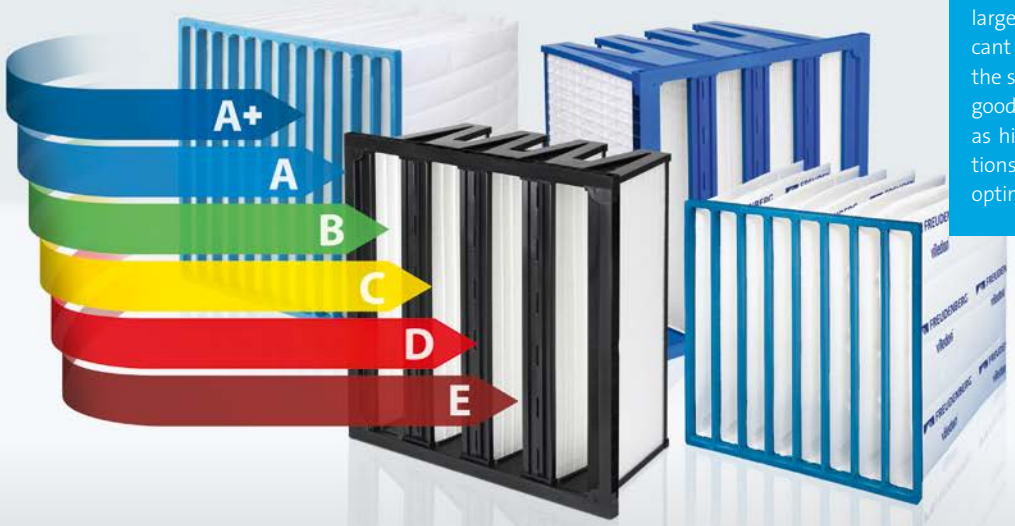
Federal Ministry for Economic Affairs and Energy

on the basis of a decision by the German Bundestag

MADE IN GERMANY

ORIGINAL 08 EXCELLENT 2020 dermatest

dermatest-guarantee.de



Recognizing potential savings

Operators of HVAC systems face major challenges: energy costs are rising while CO_2 emissions need to be reduced. Because ventilation systems require a comparatively large amount of energy, they offer significant saving potentials. In office buildings, the share of total energy consumption is a good 40 percent; in cleanrooms, it can be as high as 80 percent. Uniform classifications help in finding the right product and optimizing processes.

A QUESTION OF CLASS

EUROVENT 4/21 ENSURES TRANSPARENCY IN ENERGY CONSUMPTION

EUROVENT benefits at a glance

- Clear division of air filters into energy efficiency classes
- Assurance that the products are manufactured in accordance with the design specifications and that the energy costs are precisely specified
- Fair competition for filter manufacturers through equal conditions and comparable data
- Greater trust between manufacturers and end users enhances the image and integrity of the industry
- Uniform laboratory test procedure (predefined volume flow, ASHRAE test dust, etc.)
- Representative energy consumption through averaged pressure difference
- Information on the energy behavior of the filter during an operating period of one year

Performance-related classification

To save energy in HVAC systems, retrofitting or the use of frequency-controlled fans with high efficiency are common measures. The use of energy-efficient air filters, in contrast, is a comparatively simple and effective method of significantly reducing energy costs.

EUROVENT, the European Association of Air Handling and Drying Equipment Manufacturers, has developed a European energy efficiency classification system for air filters, which is described in the EUROVENT guideline 4/21. EUROVENT certifies the performance data of products for ventilation and cooling technology according to European and international standards. Class A stands for very good energy efficiency values and class E for very poor ones. This makes it easier for users to find the right product for them.

You will find the EUROVENT logo on some of the product pages in this catalog. This means that energy efficiency classes according to EUROVENT 4/21 are available for the filters on these pages. Our F50 and T60 pocket filters, for example, achieve very good energy efficiency classes, thus ensuring reduced energy costs and lower CO_2 emissions. Please contact our service team for further information.

LIQUID FILTRATION

INDIVIDUALLY TAILORED PRODUCT PORTFOLIO

With high-quality filter media, we ensure the highest purity and reliability in liquid filtration. Our Viledon® brand sets global standards in quality and variety. We develop solutions individually tailored to the needs of filter and membrane manufacturers. Examples include coolant / lubricant, oil, fuel, beverage, food, blood plasma, pool and spa filtration. In addition, Viledon® nonwovens are important components of various types of filter cartridges.

COOLANT AND LUBRICANT

Specifically developed for belt filters, Viledon® cooltexx nonwovens are tailored to the various requirements of preparing industrial process fluids. They offer the perfect combination of efficiency, versatility and maximum purity.

OIL, UREA AND FUEL

High-quality Viledon® pluratexx filter media enable reliable removal of dirt particles, thereby safeguarding engine function and oil quality. This guarantees the economical operation of the vehicle.

MEMBRANES AND CARTRIDGES

Whether for flat membranes, tubular modules or filter cartridges, our Viledon® novatexx range offers high-quality nonwovens for the manufacture of filtration membranes for a wide variety of filtration and separation tasks.

FOOD AND BEVERAGE

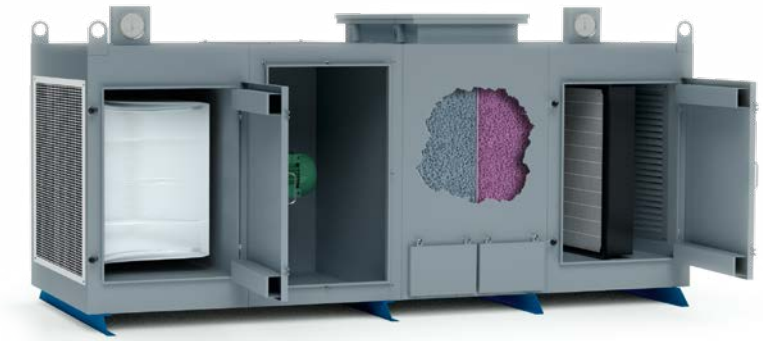
Above all, in hygienic areas such as food and beverage filtration, producers need special filter media that meet the various requirement profiles and the highest standards – this is where Viledon® nutritexx filter media come into their own.

EVERYTHING FROM A SINGLE SOURCE

COMPLETE AIR FILTER SYSTEMS, COMPREHENSIVE SERVICE

The key to an energy-efficient ventilation system with hygienically clean air lies in customer-specific planning combined with comprehensive maintenance service.

You get all this from a single supplier. Freudenberg Filtration Technologies combines a comprehensive range of reliable and energy-efficient filtration solutions with technical development and installation expertise for complete industrial filtration systems: whether air, water or gas phase.



Scan the QR code to find out more about Filter Engineering.

OUR ENGINEERING PORTFOLIO AT A GLANCE

CONSTRUCTION
MODIFICATION / NEW CONSTRUCTION
Comprehensive status analysis
Complete cost analysis
3D CAD models for installing the concept
Tailor-made end-to-end solutions
Standardized modular filter system components
Large to small turnkey plants
Final on-site inspections
Close coordination with our customers

OPERATIONAL SERVICE AND SUPPORT
VILEDON FILTERS & SPARE PARTS
High-quality Viledon® filters
Complete spectrum of spare parts
COMPREHENSIVE SERVICE SUPPORT
Repair or exchange concepts
Inspection
Measurements
Maintenance programs
TRAINING OF KEY PERSONNEL
Wide range of training courses

HIGHEST STANDARDS IN FOCUS

CERTIFIED QUALITY DELIVERS GREATER PERFORMANCE

Freudenberg Filtration Technologies is synonymous with top quality. For you as our customers, this means greater safety in daily use. Our consistent commitment to the highest standards is reflected in the wide variety of our certifications and quality improvement initiatives. They create security and trust, and are proof of high performance, top reliability and dependable quality.

ISO 9001

We are particularly proud of the continuous improvements we have been making for many years. These extend from quality, occupational safety and environmental protection to health protection and have been achieved thanks to our certified, comprehensive, integral management system. We not only set standards with our products and filtration solutions. Through our trailblazing participation in relevant committees and professional associations, we are helping to drive filtration technology forward at this level. The latest example is our contribution to defining the new ISO 16890 standard for the evaluation and classification of air filters.

We are committed to strict internal quality criteria. We are certified according to DIN EN ISO 9001. Our management system is based on ISO/TS 16949 (requirements of the automotive industry), DIN EN ISO 14001 (environmental management) and OSHAS 18001 (occupational health and safety).

Nothing left to chance

Six Sigma is an integral part of our corporate culture. In our Filtration Science Lab, we ensure the quality of our filters with particularly stringent testing procedures.

Not all filters deliver what their manufacturers promise. Product information often contains performance features that are not achieved in reality. You can protect yourself against such problems. As an independent institution, the EUROVENT Certification Company has developed an international certification program for fine filters. This gives the operator security. Our Viledon® filters are tested and classified according to the most recent standard.

PROPERLY PROTECTING LIQUID FOOD IN SILOS

TPU 500 – THE INNOVATIVE TANK OVERPRESSURE SYSTEM

The Tank Pressure Unit 500 (TPU 500) fan assembly provides optimal air quality in tanks and bottling plants in the food and beverage industry. Specially developed for silos with liquid contents, it reliably protects against contamination by bacteria, yeasts and molds. This is particularly beneficial for heat-treated products such as milk or cream, where the quality and shelf life of the product are significantly improved.

The production of milk and liquids containing milk is a sensitive process. The products often need to be stored in silos for days before further processing. Many of these tanks have open areas, such as ventilation slots, through which microbes can enter and contaminate the products. This shortens their lifetime and reduces the shelf life of the finished goods. Freudenberg Filtration Technologies has solved this problem with the TPU 500 (Tank Pressure Unit) overpressure system. This modular fan unit guarantees a contamination-free air blanket over the liquid. This increases the quality and shelf life of the products, reduces waste and contributes to improved performance throughout the process.

Fits in any tank: flexible size, maximum protection!

The TPU 500 features multi-stage filtration, consisting of a pre-filter (e.g. MaxiPleat cassette filter) and a HEPA filter. Both are food-certified and meet the highest standards for food conformity. The filter configuration can be adapted to suit the application. Both the housing made of fully welded stainless steel modules and the frame can be flexibly adapted to the respective tank size.

Using overpressure to achieve better results

- Longer shelf life of raw, intermediate and end products
- Reduced product loss thanks to controlled air quality
- Higher product quality in all process phases
- Improved production performance thanks to higher quality raw materials

CERTIFIED AND FOOD-COMPLIANT FILTER SOLUTIONS

SAFE PROCESSES IN THE FOOD INDUSTRY

Food production is a highly sensitive process. Even the slightest contamination can have serious consequences. For this reason, all components used in production are subject to stringent legal requirements. Our filtration solutions for the food industry meet all of the industry's regulatory requirements. This enables customers to achieve high quality and smooth processes.

Freudenberg Filtration Technologies only uses materials that comply with strict EU legislation in the manufacture of filter elements that come into direct contact with food. All products are tested in accordance with EC 1935/2004 and EU No. 10/2011 regulations for food contact materials. We are always ready to provide our customers with the respective documentation and certificates. Viledon® MaxiPleat and NanoPleat cassette filters also comply with ISO 846:1997, a standard that covers various test methods for the impact of microorganisms on plastics.

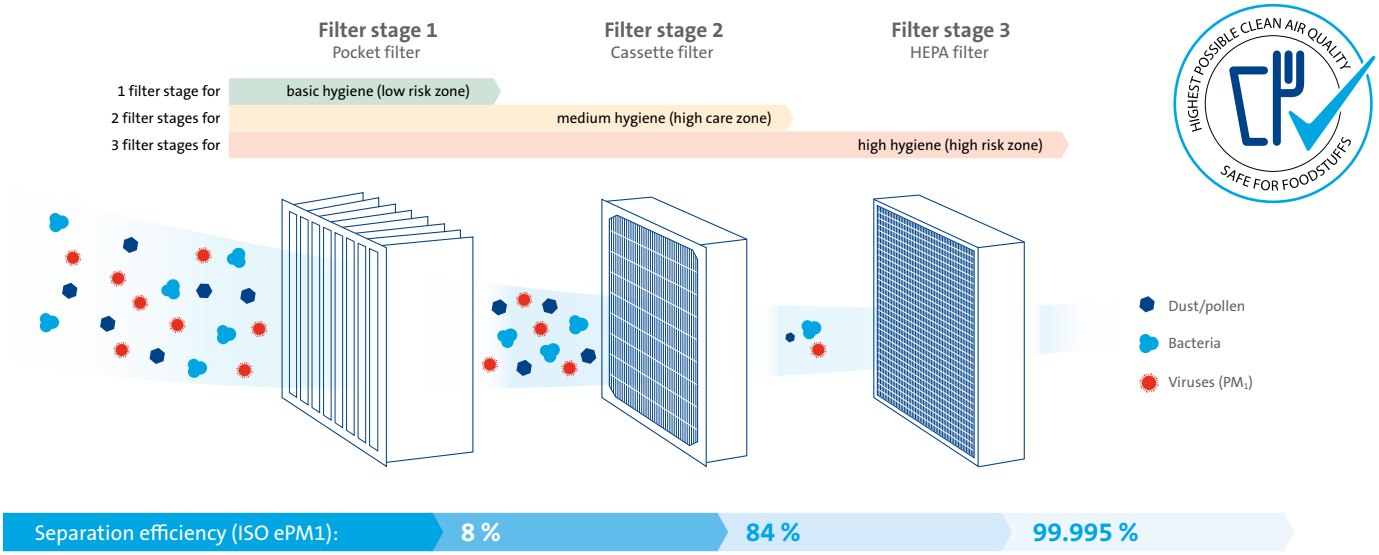
Step by step tested quality

In our multi-stage filter concepts, we combine matched Viledon® air filters of widely differing classes and designs. Two-stage prefiltration reliably eliminates coarse and fine dust. In the third stage, the main focus is on filtering the smallest particles and germs. For applications in ion exchangers and drinking water applications, we offer individually customizable filter media made from 100 percent food-grade fibers.

The right solution, zone by zone

As an EHEDG member, we ensure continuous improvement and adaptation to changing requirements and offer the appropriate food-tested filter for each zone described in Guideline 47.

Scan the QR code to find out more about the strict recommendations and binding industry standards that Viledon® filters meet.



AIR FILTRATION

FILTER MATS

FILTER MATS, FILTER PANELS, ROLL FILTERS, PAINT MIST ARRESTORS

Viledon® filter mats are progressively structured, with the density of the fiber layers increasing towards the clean air side. This ensures an optimum in terms of defined filter performance and dust holding capacity, coupled with a low pressure drop. All filter mats are produced using an eco-friendly formula. We offer a range of variants for use in general ventilation and air-conditioning technology as well as for the painting industry.

Simply scan the QR code and find out more about filter mats!

FILTER MATS

FILTER MATS | COARSE DUST

SPECIFICATIONS	
Filter medium	P15 and T3 / 290 S: Polyolefin fibers; PSB and nutritexx: Polyester fibers
Recommended final pressure drop	250 Pa
Thermal stability	up to 100 °C
Moisture resistance	100 % rel. hum.
Fire class	F1 acc. to DIN 53438
Packing	1 roll

PSB series

Application

The PSB filter mats are used for intake air filtration in air-conditioning systems of all kinds, particularly for coarse dust arrestance or as a prefilter stage.

The PSB range comprises of

- PSB / 145 S
- PSB / 275 S
- PSB / 290 S

Features and benefits of the PSB series

- By virtue of their high dust holding capacity and their long lifetime, PSB filter mats are exceptionally cost-efficient.
- All types in this series prove their worth in application categories where stable arrestance performance is required when coping with a large dust loading and a high air flow rate.
- When used in exhaust air filtration, one of the advantages of the PSB series is that arrestance efficiency and dust holding capacity are ideally matched to each other.

nutritexx 2020

nutritexx 2020 is made from 100 % food-grade fibers and is tested according 2011/10/EC. It is therefore particularly suitable for use in the food sector.

P15 series

Application

All types in this series can cope with heavy-duty operation and are suitable for filtration in air-conditioning systems of all kinds.

The P15 series features the familiar Viledon® filter mats

- P15 / 150 S
- P15 / 350 S
- P15 / 500 S

Features and benefits of the P15 series

- High arrestance efficiency right from the start over the entire operational lifetime, for maximized operational dependability.
- The material's high mechanical strength ensures good dimensional stability, even when subjected to large air volumes, over the entire operational lifetime.
- Thanks to the polyolefin fibers used, P15 filter mats are largely resistant to chemicals such as solvents, acids and lyes. They must be protected against continuous UV irradiation.
- The filter mats can be cleaned by careful washing, beating or spraying; even after being washed, they remain dimensionally stable and retain their technical filtering characteristics. Our eco-friendly series of filters is much in demand among users prioritizing waste avoidance and filtration cost savings.

T3 / 290 S

This ultra-efficient G4 filter mat is suitable for filtration in confined spaces, e. g. in control cabinets or electrical equipment. Thanks to the use of polyolefin fibers, it is highly resistant to chemicals, and hydrophobic.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L) [mm / m]	THICKNESS APPROX. [mm]	WEIGHT PER UNIT AREA APPROX. [g / m²]	NOMINAL MEDIA VELOCITY [m / s]	DUST HOLDING CAPACITY [g / m²]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
PSB / 145 S 40 / 2000	7833647	2,000 / 40	10	120	2	500	22	ISO coarse 30%	30	G2
P15 / 150 S 40 / 2000	8039227	2,000 / 40	8	100	2	600	30	ISO coarse 30%	33	G2
PSB / 275 S 30 / 2000	53375688	2,000 / 30	15	180	1.5	700	22	ISO coarse 45%	45	G3
P15 / 350 S 30 / 2000	8039427	2,000 / 30	14	200	1.5	700	30	ISO coarse 55%	57	G3
PSB / 290 S 20 / 2000	8019407	2,000 / 20	20	300	1	750	22	ISO coarse 60%	62	G4
P15 / 500 S 20 / 2000	8040248	2,000 / 20	20	350	1	600	30	ISO coarse 75%	75	G4
T3 / 290 S 40 / 2000	8105365	2,000 / 40	8	200	0.25	250	14	ISO coarse 90%	90	G4
nutritexx 2020	53435229	1,600 / 20	17	300	1	600	35	ISO coarse 50%	52	G3

FILTER MATS

FILTER MATS | FINE DUST

SPECIFICATIONS	
Filter medium	Polyester fibers
Recommended final pressure drop	450 Pa
Thermal stability	up to 100 °C; PA / ProfAir: briefly up to 120 °C
Moisture resistance	up to 100 % rel. hum.
Migration test class	S0
Fire class	F1 acc. to DIN 53438

A3 / 300 S

Application

The A3 / 300 S filter mat is designed primarily for high-quality final filtration in air-conditioning devices and systems, and as prefilters in multi stage intake air systems.

Features and benefits

- The special smoothing of the clean air side increases the rigidity of the filter mat, rendering it sturdy and installation-friendly.
- By virtue of its very good arrestance performance, the A3 / 300 S filter mat can be used universally in all applications in which high-quality filtration in the fine dust range is demanded in order to protect both people and machinery.

ProfAir

Application

ProfAir is a fine filter for final filtration of intake air in repair paint-spray booths. The filter mat ensures high arrestance performance for particles > 10 µm and thus provides a high degree of protection against paintwork damage.

PA / 500-10, PA / 560 G-10 and PA-5 micron

Application

The PA / 500-10 and PA / 5560 G-10 filter mats, acknowledged as the standard in surface treatment technology, are used for final filtration of the intake air in paint shops und paint-spray booths. The principal application category for the PA-5 micron filter mat is final filtration of the intake air in paint-spray processes with particularly stringent requirements for air purity.

Features and benefits of the PA series

- PA / 500-10 and PA / 560 G-10 assure practically 100 % arrestance of particles > 10 µm, which are able to cause visually perceptible surface blemishes. This offers their users maximized security against paintwork defects.
- With practically 100 % arrestance of particles > 5 µm, the PA-5 micron filter mat meets even the most stringent of requirements in surface treatment technology.
- The adherent surface of each individual fiber in the filter media can be relied upon to retain already-arrested particles over the entire operational lifetime.
- PA / 560 G-10 and PA-5 micron additionally possess a reinforcing mesh fabric on the clean air side, which increases the filter mat's stability and reduces the risk of the clean air side being damaged during installation.
- All PA filter mats are resistant to solvent vapours and contain no silicone.

Delivery notes

All the filter mats we supply are airtight packed as roll goods in standard dimensions in plastic sheets. Other dimensions are available as roll goods or blanks.
Special shapes like die-cuts and bags, welded or sewn, are available on request.

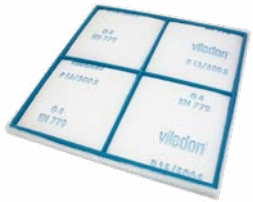
ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L) [mm / m]	THICKNESS APPROX. [mm]	WEIGHT PER UNIT AREA APPROX. [g / m²]	NOMINAL MEDIA VELOCITY [m / s]	DUST HOLDING CAPACITY [g / m²]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012*	CUT OFF PARTICLE SIZE [µm]
									ISO ePM1	ISO ePM2,5	ISO ePM10		
A3 / 300 S 20 / 2000	8422288	2,000 / 20	20	300	0.5	550	65	ISO ePM10 50%	2	10	51	M5	10
ProfAir N 20 / 2000	53350549	2,000 / 20	23	545	0.5	550	70	ISO ePM10 55%	11	17	55	M5	10
PA / 500-10 20 / 2000	7802106	2,000 / 20	25	500	0.5	680	60	ISO ePM10 50%	10	15	50	M5	10
PA / 560 G-10 20 / 1600	53253198	1,600 / 20	25	580	0.5	590	70	ISO ePM10 55%	11	17	55	M5	10
PA / 560 G-10 20 / 2000	7802206	2,000 / 20	25	580	0.5	590	70	ISO ePM10 55%	11	17	55	M5	10
PA / 560 G-10 22 / 1600	8887232	1,600 / 22	25	580	0.5	590	70	ISO ePM10 55%	11	17	55	M5	10
PA / 560 G-10 22 / 2000	8238130	2,000 / 22	25	580	0.5	590	70	ISO ePM10 55%	11	17	55	M5	10
PA-5 micron BK 20 / 2000	53296957	2,000 / 20	25	650	0.5	470	105	ISO ePM10 65%	7	19	65	M6	5

Subject to technical changes.

* gemessen bei Nenndurchströmgeschwindigkeit 0,25 m/s

FILTER MATS

FILTER PANELS



SPECIFICATIONS	
Filter medium	Various Viledon® filter media available
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane

Application

The filter panels are used for intake air filtration in air-conditioning systems of all kinds, particularly for coarse dust arrestance or as prefilter stage. Application areas include e. g.

- Heavy industry: cement plants, steel mills,
- Automotive: paint booths,
- Food industry,
- Petrochemical industry.

Filter panels are used to protect the climate and ventilation systems, control panels and heating systems.

Features and benefits

- Large range of high quality and efficient Viledon® filter media.
- Extremely rigid.
- Non-corroding and moisture-resistant up to 100 % relative humidity.
- Easy installation, no extra clamping necessary.
- Self-sealing through overlapping.

Delivery notes

Filter panels in a washable version are available upon request.

ARTICLE	ARTICLE NUMBER	FILTER MEDIUM	DIMENSIONS (W×L) [mm]	NOMINAL VOLUME FLOW [m³/h]	PRESSURE DROP [Pa]	CLASS TO ISO 16890	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
LH 111 MIT P15 / 150 S 610 / 610	53263665	P15 / 150 S	610×610	2,600	25	ISO coarse 30%	33	G2
LH 101 MIT PSB / 290 S 610 / 610	53263659	PSB 290 S	610×610	1,300	35	ISO coarse 60%	62	G4
LH 101 MIT PSB / 290 S 700 / 500	53263662	PSB 290 S	700×500	1,250	35	ISO coarse 60%	62	G4
LH 101 MIT PSB / 290 S 625 / 500	53263658	PSB 290 S	625×500	1,100	35	ISO coarse 60%	62	G4
LH 101 MIT PSB / 290 S 500 / 500	53263660	PSB 290 S	500×500	900	35	ISO coarse 60%	62	G4
LH 101 MIT PSB / 290 S 500 / 400	53263661	PSB 290 S	500×400	720	35	ISO coarse 60%	62	G4
LH 103 MIT P15 / 500 S 610 / 610	53253599	P15 / 500 S	610×610	1,300	35	ISO coarse 75%	75	G4
LH 103 MIT P15 / 500 S 500 / 500	53000301	P15 / 500 S	500×500	900	35	ISO coarse 75%	75	G4
LH 103 MIT PA / 560 G-10 500 / 500	53430605	PA / 560 G-10	500×500	450	55	ISO ePM 10 55%	90	M5

FILTER MATS

ROLL FILTERS | COARSE DUST

SPECIFICATIONS	
Filter medium	Polyester fibers
Recommended final pressure drop	160 Pa
Initial pressure drop	50 Pa at 2.5 m/s
Dust holding capacity	400 g/m²
Gravimetric efficiency	80 % (EN 779)
Weight	250 g/m²

Application

The LH R/260 filter mat is used for filtration in roll filter equipment.

Features and benefits

The medium used is a high-performance nonwoven made of polyester fibers with thermal fiber bonding, i.e. without any bonding agents. The filter medium is progressively structured, featuring fiber layers with different fiber diameters, arranged one after the other in such a way that the density of the fiber layers increases towards the clean air side. This ensures an optimum in terms of defined filter performance and dust holding capacity.

Result: longer operational lifetime of the filter. A scrim increases the mechanical strength.

Fire behaviour

Viledon® filter media meet the stringent requirements of fire class F1 in conformity with DIN 53438, and are thus self-extinguishing.

Delivery notes

Available on a cardboard core or a metal spool.
The roll goods R/260 (40 running meters) are manufactured in three different widths: 2,200 mm, 1,900 mm and 1,600 mm.

ARTICLE	ARTICLE NUMBER	THICKNESS APPROX. [mm]	CLASS TO ISO 16890	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
LH R 260/810	53329934	8	ISO coarse 40%	43	G3
LH R 260/838	53329914	8	ISO coarse 40%	43	G3
LH R 260/1110	53329936	8	ISO coarse 40%	43	G3
LH R 260/1143	53329915	8	ISO coarse 40%	43	G3
LH R 260/1250	53361322	8	ISO coarse 40%	43	G3
LH R 260/1410	53329938	8	ISO coarse 40%	43	G3
LH R 260/1448	53329916	8	ISO coarse 40%	43	G3
LH R 260/1710	53329940	8	ISO coarse 40%	43	G3
LH R 260/1753	53329917	8	ISO coarse 40%	43	G3
LH R 260/2010	53355829	8	ISO coarse 40%	43	G3
LH R 260/2058	53329918	8	ISO coarse 40%	43	G3

FILTER MATS

PAINT MIST ARRESTORS, GLASS-FIBER

SPECIFICATIONS	
Filter medium	Glass-fibers
Thermal stability	up to at least 80 °C
Fire behaviour	non-flammable acc. to DIN 4102
Recommended media velocities	0.5 – 1.75 m/s

Application

High-quality filtration for paint-spray booth exhaust air. The PS 100 type, thanks to its higher arrestance efficiency is particularly well-suited for use in installations with heat recovery systems. The Paint Stop Hydro PSH 75 filter mat is ideally suited for arresting water-based paint.

During the intended use as a paint mist arrestor, the safety regulations for avoiding self-ignition must be complied with.

Delivery notes

PS 50 / PS 100 and PSH 75 are available on request in all commonly encountered roll lengths and widths, and as rectangular blanks.

Features and benefits PS 50 / PS 100

- Dimensionally elastic glass-fiber medium with a progressive structure, i. e. openly structured face side (green) and increasing fiber density towards the clean air side (white).
- High dimensional stability even when loaded thanks to low compressibility, which means the entire material depth is used for storing paint mist.
- Non-flammable in conformity with DIN 4102 and thermally stable up to 80 °C.

Features and benefits of the PSH 75 Paint Stop Hydro

- A shape-elastic high performance glass-fiber medium is used.
- Thanks to its fine, elastic material structure, the surface is prevented from being prematurely clogged.
- Enhanced material rigidity thanks to special finish.
- The paint mist arrestor PSH 75 scores excellently in terms of increased paint storage capacity for hydro-paints, with concomitantly long useful lifetime.

ARTICLE	DIMENSIONS (W × L) [mm / m]	THICKNESS APPROX. [mm]	WEIGHT PER UNIT AREA APPROX. [g / m²]	INITIAL PRESSURE DROP (AT 1.75 m/s) [Pa]	PAINT MIST ARRESTANCE EFFICIENCY [%]	PAINT HOLDING CAPACITY (AT 80 Pa AND 0.7 m/s) [g / m²]
PS 50 20 / 1000	1,000 / 20	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 20 / 1524	1,524 / 20	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 20 / 2000	2,000 / 20	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 50 / 500	500 / 50	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 50 / 1000	1,000 / 50	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 50 / 1250	1,250 / 50	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 50 / 1524	1,524 / 50	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 500	500 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 610	610 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 660	660 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 760	760 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 860	860 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 910	910 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 1000	1,000 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 1250	1,250 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 1524	1,524 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 50 100 / 2000	2,000 / 100	50 – 65	220 – 240	40	90 – 95	3,500 – 4,700
PS 100 20 / 1000	1,000 / 20	100 – 120	300	60	95 – 98	3,900 – 5,050
PS 100 20 / 1524	1,524 / 20	100 – 120	300	60	95 – 98	3,900 – 5,050
PS 100 20 / 2000	2,000 / 20	100 – 120	300	60	95 – 98	3,900 – 5,050
PSH 75 20 / 1000	1,000 / 20	65 – 80	280 – 300	50	> 98	> 4,000

FILTER MATS

PAINT MIST SEPARATORS, SYNTHETIC | PAINT POCKETS

SPECIFICATIONS	
Filter medium	Polyester-fibers
Thermal stability	up to at least 80 °C
Recommended media velocities	0.5 – 1.75 m / s

Application

High-quality filtration for paint-spray cabin exhaust air.

The Paint Pocket floor filter mats are preferably used for paint mist separation in repair and paint-spray cabins with an exhaust air system.

Features and benefits

The Paint Pockets are made from 100 % synthetic raw materials. Premature blocking of the surface is prevented by the diamond-shaped, three-dimensional material structure. This structure doubles the filter area, thereby increasing the filter's capacity to absorb paint mist, while the built-in mesh makes the mats stable and tear-resistant. The fully synthetic paint mist separators are easy to dispose of and are 100 % thermally recyclable.

The key features of Paint Pockets original

- The diamond-shaped surface structure increases service life by three to four times compared to glass paint separation mats.
- The high performance layer on the backside of the mats allows a greater efficiency in paint mist separation.
- This extends the service life of the downstream filter stages by up to 300 %.

The key features of Paint Pockets green

- Special, cost-optimized version for repair cabins with no downstream filters.
- The three-dimensional material structure enables longer service life and replacement intervals along with reliable compliance with prescribed emission limits (3 mg / m³).

Delivery notes

Paint Pockets filter mats are available on request in all commonly encountered roll lengths and widths. Paint Pocket original can also be supplied as rectangular blanks.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	THICKNESS APPROX. [mm]	FACE VELOCITY [m/s]	INITIAL PRESSURE DROP [Pa]	PAINT MIST ARRESTANCE EFFICIENCY [%]	RECOMMENDED FINAL PRESSURE DROP [Pa]	PAINT HOLDING CAPACITY [g/m²]
Paint Pockets original	500	30	0.5	20	>99.5	250	up to 30,000
Paint Pockets green	440	25	0.5	14	>99	250	up to 25,000

EDRIZZI SYSTEMS

PAINT MIST ARRESTORS

Made from fire retardant corrugated board, the patented edrizzi® paint mist separators have a capacity of up to 25 kg with a separation efficiency of up to 97 %. The system saves both time and costs. The paint mist separators can be quickly replaced and disposed of at low cost in incineration plants. They complete our portfolio of multi-stage filter systems.

Simply scan the QR code
and find out more
about the edrizzi® system!

EDRIZZI SYSTEMS

PAINT MIST ARRESTORS | VARIO

SPECIFICATIONS	
Paint storage capacity	up to 25 kg
Arrestance for paint mist	up to 97 %
Nominal air flow	750 m³/h
Thermal stability	80 °C
Fire class	B1 acc. to DIN 4102 – very flame retardant | F1 acc. to DIN 53438
Moisture resistance	up to 70 % rel. hum.

Application

edrizzi® paint mist arrestors allow high-quality dry separation in spray booths. They are perfect as a prefilter in multistage filtration systems by Freudenberg Filtration Technologies.

Features and benefits

- The simple but innovative design of these patented paint mist arrestors provides paint shops with cost-effective, efficient dry separation with a high paint storage capacity.
- The handy boxes are made from fire-retardant corrugated cardboard. This guarantees a safe and stable application.
- The majority of the overspray is collected in the front third of the paint mist arrestor. The guidance systems deep inside ensure optimum arrestance efficiency and are designed not to become saturated too fast.
- edrizzi® paint mist arrestors reduce noise levels in the spraying area by 15 to 20 dB.
- The dried paint can be disposed of cost-effectively.

Special features

There is a suitable edrizzi® paint mist arrestor for every type of paint and application:

- The edrizzi® Vario medium is the solution for the majority of surface materials.
- The edrizzi® Vario fine is used for applications in which the edrizzi® Vario medium reaches its limits in terms of arrestance efficiency. Application examples include high-rotation bells, very finely atomized solvent coatings and nano coatings.
- The edrizzi® Vario coarse is the solution for applications in which paint cakes build up on the inlet side of the edrizzi® medium, preventing attainment of the maximum service life.

Note

When using the product for its intended purpose as a paint mist arrestor, it is necessary to comply with the safety regulations for avoiding self-ignition. See reverse side of this data sheet.

You can find assembly instructions on our YouTube channel

www www.youtube.com/user/FreudenbergFilter

Delivery notes

edrizzi® paint mist arrestors are delivered unassembled in lots of 20 pieces, allowing cost-effective transport and storage. Inner and outer box are delivered separately.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	INITIAL PRESSURE DROP [Pa]	WEIGHT, EMPTY [kg]
edrizzi® Vario coarse	53534365 + 53534347	485×485×495	110	1.6
edrizzi® Vario medium	53534365 + 53534348	485×485×495	200	1.9
edrizzi® Vario fine	53534365 + 53534364	485×485×495	270	2.2
edrizzi® Vario S coarse	53534344 + 53534331	485×485×295	30	0.8
edrizzi® Vario S medium	53534344 + 53534332	485×485×295	140	1.1
edrizzi® Vario S fine	53534344 + 53534333	485×485×295	240	1.4
edrizzi® HP	53593604 + 53593605	485×485×350	65	1.0
edrizzi® Vario mounting frame	53534366	500×500×466		
edrizzi® Vario S mounting frame	53534345	500×500×265		

EDRIZZI SYSTEMS

PAINT MIST ARRESTORS | VARIO HYDRO

SPECIFICATIONS	
Paint storage capacity	up to 25 kg
Arrestance for paint mist	up to 97 %
Nominal air flow	750 m³/h
Thermal stability	80 °C

Application

edrizzi® paint mist arrestors allow high-quality dry separation in spray booths. They are perfect as a prefilter in multistage filtration systems by Freudenberg Filtration Technologies.

Features and benefits

- The simple but innovative design of these patented paint mist arrestors provides paint shops with cost-effective, efficient dry separation with a high paint storage capacity.
- The handy boxes are made from wet strength paper. This guarantees a safe and stable application in areas with strong deviations in relative humidity and in case of intensive loading with water based paints.
- The majority of the overspray is collected in the front third of the paint mist arrestor. The guidance systems deep inside ensure optimum arrestance efficiency and are designed not to become saturated too fast.
- edrizzi® paint mist arrestors reduce noise levels in the spraying area by 15 to 20 dB.
- The dried paint can be disposed of cost-effectively.

Special features

There is a suitable edrizzi® paint mist arrestor for every type of paint and application:

- The edrizzi® Vario medium is the solution for the majority of surface materials.
- The edrizzi® Vario fine is used for applications in which the edrizzi® Vario medium reaches its limits in terms of arrestance efficiency. Application examples include high-rotation bells, very finely atomized solvent coatings and nano coatings.
- The edrizzi® Vario coarse is the solution for applications in which paint cakes build up on the inlet side of the edrizzi® medium, preventing attainment of the maximum service life.

Note

When using the product for its intended purpose as a paint mist arrestor, it is necessary to comply with the safety regulations for avoiding self-ignition. See reverse side of this data sheet.

You can find assembly instructions on our YouTube channel

www www.youtube.com/user/FreudenbergFilter

Delivery notes

edrizzi® paint mist arrestors are delivered unassembled in lots of 20 pieces, allowing cost-effective transport and storage. Inner and outer box are delivered separately.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	INITIAL PRESSURE DROP [Pa]	WEIGHT, EMPTY [kg]
edrizzi® Vario hydro coarse	53537032 + 53537030	485×485×495	110	1.6
edrizzi® Vario hydro medium	53537032 + 53537031	485×485×495	200	1.9
edrizzi® Vario hydro fine	53537032 + 53537206	485×485×495	270	2.2
edrizzi® Vario S hydro coarse	53537029 + 53537024	485×485×295	30	0.8
edrizzi® Vario S hydro medium	53537029 + 53537026	485×485×295	140	1.1
edrizzi® Vario S hydro fine	53537029 + 53537028	485×485×295	240	1.4

FILTER CELLS

MP SERIES AND CPACK

Viledon® filter cells are versatile and can be used to achieve longer service life. For use in the prefiltration of ventilation and air-conditioning systems to protect downstream fine filters and as edrizzi® after-filters to separate overspray.

Simply scan the QR code and find out more about filter cells!

FILTER CELLS

MP 45 | COARSE DUST

SPECIFICATIONS	
Thermal stability	up to 70 °C
Moisture resistance	100 % rel. hum.

Application

Filter cells are used for prefiltration in ventilation and air-conditioning units, and in intake air systems and lines, so as to extend the operational lifetimes of the downstream fine filters.

Almost all commercially available filter cells and filter mats can be replaced in the removable frame by the filter cells MP 45 (frame material cardboard) and MP 45 K (frame material plastic).

The MP 45 KTC filter cells can be used as prefilters for the Viledon® MaxiPleat filters, simply by clipping them on thus enabling another filter stage to be inserted without any structural modifications.

Features and benefits of the MP 45 KTC

- Four coupling holes (L) are provided in the frame corners of the clean air side. This means the prefilter can be simply clipped onto an already-installed MaxiPleat basic filter fitted with black connecting pins. The connecting pins anchored in the basic filter can no longer be detached. The MP 45 KTC prefilter, however, can easily be removed and replaced. Even while the intake air system is still operating, the prefilter can be quickly and safely replaced.
- Velcro fastenings (KB) to the main filter increase the retention forces during operation. Additional metal brackets are available on request, which secure the filter in place when it is installed overhead.
- The entire filter element contains no metal, and is therefore non-corroding and fully incinerable.

Delivery notes

Customized dimensions and regionally divergent versions are available on request.

ARTICLE	ARTICLE NUMBER	FRAME	DIMENSIONS (W × H × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	FILTER CLASS ACC. TO EN 779:2012
MP 45 0595x0595x48	53349216	Cardboard	595 × 595 × 48	1.1	3,400	75	ISO coarse 65%	G4
MP 45 K 0595x0595x48	53401206	Plastic	595 × 595 × 48	1.1	3,400	75	ISO coarse 65%	G4
MP 45 0595x0595x96	53307806	Cardboard	595 × 595 × 96	2.0	3,400	50	ISO coarse 65%	G4
MP 45 K 0595x0595x96	53408851	Plastic	595 × 595 × 96	2.0	3,400	50	ISO coarse 65%	G4
MP 45 KTC 0555x0555x092 LKB	53374950	Nonwoven	555 × 555 × 92	2.0	3,400	50	ISO coarse 65%	G4
MP 45 KTC 0555x0555x092 LD	53386678	Nonwoven	555 × 555 × 92	2.0	3,400	50	ISO coarse 65%	G4

FILTER CELLS

CPACK | COARSE DUST

SPECIFICATIONS	
Thermal stability	up to 70 °C
Moisture resistance	100 % rel. hum.

Application

CPack AXM Panel Filters are ideally suited for use in potentially explosive atmospheres. Due to their low installation depth, CPack AXM filters are often used as secondary filter for edrizzi® which are used for the filtration of cabin exhaust air.

In addition to applications within the field of surface treatment, the filters also meet the highest requirements in gas turbines or in building ventilation. For this purpose, the variant CPack M without ATEX approval can be used.

The media and their characteristic features

- CPack filters consist of a synthetic nonwoven filter mat and a galvanized metal frame.
- The high-quality material structure enables optimal dust absorption with low pressure loss.
- CPack filters are corrosion and moisture resistant up to 100 % humidity. Temperature resistance is 100 °C.
- Viledon® CPack filters are available with a wide selection of Viledon® filter mats, allowing them to be tailored to meet existing process requirements.
- The pleat packs have a depth of 48 or 96 mm.
- The variants with header frames can be installed in commercially available mounting frames.
- CPack variants with recessed pleat package and a depth of 145 mm are specially designed for installation behind the edrizzi® paint mist separator. These CPack filters can be inserted together with the edrizzi® box in the same mounting frame.
- Also available as cardboard framed (folding carton) version. This simplifies disposal.

Note

CPack filters are available in versions to be used in explosive zones. Please get informed in detail about the current certificates of conformity.

Delivery notes

Customized dimensions and regionally divergent versions are available on request.

ARTICLE	VERSION	DIMENSIONS (W × L × D) [mm]	FILTER MEDIUM	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER AREA [m²]	CLASS TO ISO 16890	FILTER CLASS ACC. TO EN 779:2012
CPACK AXM 592x592x96 H0 P15/350	Head frame	592 × 592 × 96	P15/350 S	3,400	100	0.9	ISO coarse 45%	G3
CPACK AXM 592x592x96 H0 P15/500	Head frame	592 × 592 × 96	P15/500 S	3,400	135	0.9	ISO coarse 65%	G4
CPACK AXM 592x592x96 H0 PSB/290	Head frame	592 × 592 × 96	PSB/290 S	3,400	110	0.9	ISO coarse 55%	G4
CPACK AXM 592x592x96 B0 P15/500	Box-Type	592 × 592 × 96	P15/500 S	3,400	125	1.0	ISO coarse 65%	G4
CPACK AXM 592x592x48 B0 P15/350	Box-Type	592 × 592 × 48	P15/350 S	3,400	70	0.5	ISO coarse 45%	G3
CPACK AXM 592x592x48 B0 P15/500	Box-Type	592 × 592 × 48	P15/500 S	3,400	95	0.5	ISO coarse 65%	G4
CPACK AXM 485x485x145 R1 P15/500	Secondary edrizzi® filter	485 × 485 × 145	P15/500 S	750	20	0.7	ISO coarse 65%	G4
CPACK Pleat + NFEWP02 P15/500 S	Secondary edrizzi® filter	485 × 485 × 145	P15/500 S	750	20	0.7	ISO coarse 65%	G4
CPACK Pleat + NFEWP02 P15/150 S	Secondary edrizzi® filter	485 × 485 × 145	P15/150 S	750	15	0.7	ISO coarse 30%	G2

POCKET FILTERS

COMPACT, WINAIR

Viledon® pocket filters are made from non-breaking synthetic-organic fibers and microfibers. The pockets are welded and foamed into the front frame in a leakproof configuration so as to provide maximized security against dust breakthrough. Their high cost-efficiency is rooted in low average pressure drops and optimized aerodynamics coupled with full utilization of the filtering area available.

Simply scan the QR code and find out more about pocket filters!

POCKET FILTERS

COMPACT | COARSE DUST

SPECIFICATIONS	
Filter medium	Polyester
Recommended final pressure drop	250 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

Special features of all Compact coarse dust pocket filters

- Progressively structured high-performance nonwovens made from non-breaking synthetic-organic fibers.
- Low pressure difference and a high dust storage capacity guarantee a very long service life and high efficiency of the filter system.
- Free of glass-fibers.
- Non-corroding materials.
- Self-extinguishing according to DIN 53438 (fire class F1).
- Microbiologically inactive materials and the design meet all the criteria laid down in VDI Guideline 6022 “Hygiene requirements for ventilation and air-conditioning systems and units”.
- High functional dependability thanks to the leakproof welded configuration of the filter pockets, foam-sealed into a robust PUR front frame.
- Leak-free aerodynamic spacers ensure an optimal flow through the pockets.

G 35

Application

The Compact G35 series is used for supply, exhaust and recirculating air filtration in all kinds of ventilation systems, such as

- in industrial processes (metal processing, paper production, food and beverage, etc.),
- for exhaust and recirculating air filtration in paint shops,
- for ventilating machine rooms and production areas,
- as prefilters for turbomachinery.

Features and benefits

- The robust filter series for heavy coarse dust loadings, even at high air flow rates. The filters achieve medium clean air quality coupled with particularly cost-efficient operating behavior and low energy costs.
- High functional dependability even when subjected to extreme humidity and moisture.
- By reason of their shorter pockets, the G 35 S provide a space-saving solution for systems in which the G 35 L long-pocket filters cannot be used due to space constraints.
- For applications with extremely high dust quantities, the G 35 L with 8 long-pockets is recommended.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	DUST HOLDING CAPACITY (AC FINE / 300 Pa) [g]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY ISO ePM10 [%]	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
G 35 1/4 4L	7580238	289×289×650	4	1.5	1,500	2,400	30	ISO coarse 60%	42	64	G3
G 35 1/2 3S	7521389	289×592×350	3	1.2	2,000	1,800	20	ISO coarse 65%	44	67	G3
G 35 1/2 3L	7580138	289×592×650	3	2.4	2,500	3,900	30	ISO coarse 60%	42	64	G3
G 35 1/2H 8L	53495543	592×289×650	8	3.0	3,000	4,100	30	ISO coarse 60%	42	64	G3
G 35 5/6 4S	7521289	492×592×350	4	1.6	2,700	2,400	20	ISO coarse 65%	44	67	G3
G 35 5/6 4L	7599437	492×592×650	4	3.2	3,400	5,200	30	ISO coarse 60%	42	64	G3
G 35 1/1 5S	7515413	592×592×350	5	2.0	3,400	2,800	20	ISO coarse 65%	44	67	G3
G 35 1/1 8M	8929206	592×592×510	8	4.7	4,250	7,500	40	ISO coarse 60%	43	64	G3
G 35 1/1 5L	7579317	592×592×650	5	4.0	4,250	6,200	30	ISO coarse 60%	42	64	G3
G 35 1/1 8L	53307071	592×592×650	8	6.0	4,250	10,000	45	ISO coarse 60%	41	63	G3

POCKET FILTERS

COMPACT | COARSE DUST

SPECIFICATIONS	
Filter medium	Polyester
Recommended final pressure drop	250 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

F 40 and F 45

Application

Compact pocket filters of the series F 40 and F 45 are used for supply, exhaust and recirculating air filtration in all kinds of ventilation systems, such as

- in general air-conditioning applications,
- for ventilating machine rooms and production areas,
- for exhaust and recirculating air filtration in paint lines,
- as prefilters for fine and micro-filters in industrial processes (metal processing, chemicals, pharmaceuticals, food and beverage, optics, electronics, etc.).

Features and benefits

- Stable arrestance performance even with high coarse dust loadings and high air flow rate.
- High functional reliability, even under extremely moist and wet operating conditions.
- Thanks to their shorter pockets, F 45 S filters offer a space-saving solution for plants where the use of long-pocket filters would not be possible.
- F 45 R in reverse flow design offers the possibility of a prefilter stage on the raw-gas side and therefore the expansion of the filter system.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	DUST HOLDING CAPACITY (AC FINE/300 Pa) [g]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY ISO ePM10 [%]	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
F 40 1/4 4L	8500359	289×289×650	4	1.5	1,500	1,650	30	ISO coarse 70%	48	71	G4
F 45 1/2 3S	7529267	289×592×350	3	1.2	2,000	1,000	35	ISO coarse 70%	49	71	G4
F 45 1/2 3R	53291854	289×592×350	3	1.2	2,000	1,000*	35	ISO coarse 70%*	49	70	G4*
F 40 1/2 3L	8498114	289×592×650	3	2.4	2,500	2,600	30	ISO coarse 70%	48	71	G4
F 40 1/2H 8L	53564830	592×289×650	8	3.0	2,500	2,800	30	ISO coarse 70%	48	71	G4
F 45 5/6 4S	7528456	492×592×350	4	1.6	2,700	1,350	35	ISO coarse 70%	49	71	G4
F 45 5/6 4R	53287379	492×592×350	4	1.6	2,700	1,350*	35	ISO coarse 70%*	49	70	G4*
F 40 5/6 4L	8500259	492×592×650	4	3.2	3,400	3,500	30	ISO coarse 70%	48	71	G4
F 45 1/1 5S	7526134	592×592×350	5	2.0	3,400	1,700	35	ISO coarse 70%	49	71	G4
F 45 1/1 5R	53266401	592×592×350	5	2.0	3,400	1,700*	35	ISO coarse 70%*	49	70	G4*
F 40 1/1 5L	8256138	592×592×650	5	4.0	4,250	3,250	40	ISO coarse 70%	48	71	G4
F 45 1/1 8L	53457509	592×592×650	8	6.0	4,250	4,800	50	ISO coarse 70%	48	70	G4

Subject to technical changes.

* Also available as reverse-flow version. Measured values based on F 45 S.

POCKET FILTERS

COMPACT | FINE DUST

energy efficiency performance

EUROVENT CERTIFIED PERFORMANCE AIR FILTERS www.eurovent-certification.com

SPECIFICATIONS	
Filter medium	Polyesther, Polyolefin
Recommended final pressure drop	450 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

Special features of all fine dust Compact pocket filters

High-performing, extremely cost-effective and energy efficient: Viledon® Compact pocket filters offer dependable operating characteristics plus freedom from maintenance over the entire operational lifetime. They constitute an optimum combination of stable arrestance performance for fine dusts, high dust holding capacity, low pressure drop and long operational lifetime.

- Single- or multi-layered progressively structured high-performance nonwovens made from non-breaking synthetic-organic fibers.
- High arrestance, low pressure drop, long operational lifetime, high cost-efficiency.
- Free of glass-fibers, non-corroding, moisture-resistant up to 100 % relative humidity, self-extinguishing according to DIN 53438 (fire class F1) and microbiologically inactive. They meet all criteria laid down in VDI Guideline 6022 “Hygiene requirements for ventilation and air-conditioning systems and units”.
- High functional dependability thanks to filter pockets welded in a leakproof configuration foamed onto a PUR front frame, with welded-in aerodynamic spacers and a dimensionally stable construction of the entire filter element.

Delivery notes

Customized dimensions and the versions F 50 AXM and T 60 AXM suitable for use in explosive atmospheres are available on request.

F 50 and T 60

Application

F 50 and T 60 are used for filtering intake, exhaust and recirculating air in air-conditioning systems with stringent requirements for sturdiness and cost-efficiency, e. g.

- in industrial processes (chemicals, pharmaceuticals, food and beverages, optics, electronics, etc.),
- in intake and exhaust air filtration for paint shops,
- in intake air filtration for gas turbines and turbocompressors onshore and offshore (especially T 60),
- for intake and exhaust air filtration in sophisticated air-conditioning technology (hospitals, laboratories, libraries, museums, airports), plus production facilities and factory halls (especially F 50).

Features and benefits

- T 60 and F 50 pocket filters are robust in continuous operation and achieve superlative performance even during temporary overload operation in terms of high clean air quality.
- Both pocket filter series achieve good energy efficiency classes and thus ensure reduced energy costs and downsized CO_2 emissions.
- In the intake air systems of gas turbines, T 60 filters can be relied upon to retain aggressive, abrasive particles, to minimize blade fouling and erosion, thus enhancing the efficiency and availability of turbomachinery.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	DUST HOLDING CAPACITY (AC FINE/300 Pa) [g]	DUST HOLDING CAPACITY (AC FINE/800 Pa) [g]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
										ISO ePM1	ISO ePM2,5	ISO ePM10		
F 50 1/4 4L	7582250	289×289×650	4	1.4	1,525	600		50	ISO ePM10 55%	7	15	58	M5	10
F 50 1/2 3L	7582150	289×592×650	3	2.4	2,500	1,000		50	ISO ePM10 55%	7	15	58	M5	10
F 50 1/2H 8L	53473137	592×289×650	8	3.0	2,100	900		60	ISO ePM10 55%	5	14	56	M5	10
F 50 5/6 4L	7581449	492×592×650	4	3.2	3,400	2,000		50	ISO ePM10 55%	7	15	58	M5	10
F 50 1/1 5S	53456360	592×592×350	5	2.0	3,400	1,000		65	ISO ePM10 55%	7	18	59	M5	10
F 50 1/1 8M	53457510	592×592×510	8	4.7	4,250	3,100		60	ISO ePM10 55%	7	15	56	M5	10
F 50 1/1 5L	7581349	592×592×650	5	4.0	4,250	2,600		50	ISO ePM10 55%	7	15	58	M5	10
T 60 1/4 4L	8474350	289×289×650	4	1.5	975	700	1,050	65	ISO ePM10 60%	8	18	61	M6	9
T 60 1/2 3L	8474250	289×592×650	3	2.4	1,600	1,100	1,700	65	ISO ePM10 60%	8	18	61	M6	9
T 60 1/2H 8L	53471177	592×289×650	8	3.0	2,100	1,400	2,100	65	ISO ePM10 60%	8	18	61	M6	9
T 60 5/6 4L	8474150	492×592×650	4	3.2	2,175	1,500	2,250	65	ISO ePM10 60%	8	18	61	M6	9
T 60 1/1 8L	8473449	592×592×650	8	6.0	4,250	2,800	4,200	65	ISO ePM10 60%	8	18	61	M6	9
T 60 OG	53430681	618×578×605	8	5.5	3,925	2,550	3,900	70	ISO ePM10 60%	8	18	61	M6	9

Subject to technical changes.

POCKET FILTERS

COMPACT | FINE DUST

SPECIFICATIONS	
Filter medium	Polyesther, Polyolefin
Recommended final pressure drop	450 Pa
Bursting pressure	> 60,00 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

Note

The versions F 50 AXM and T 60 AXM are suitable for use in explosive atmospheres. Please get informed about the current certificates of conformity.

T 90 PRE

Application

T 90 PRE with proven jetspin technology are used in intake air filtration for gas turbines and turbocompressors onshore and offshore.

Features and benefits

- In intake air filtration for gas turbines, T 90 PRE filters can be relied upon to arrest aggressive, abrasive particles, to minimize blade fouling and erosion, and thus to upgrade the efficiency and availability of turbomachinery.

T 90 and T 95

Application

T 90 and T 95 filters are used for intake, exhaust and recirculating air filtration in air-conditioning systems with special requirements for arrestance performance, e. g.

- in industrial processes (chemicals, pharmaceuticals, food and beverages, optics, electronics, etc.),
- as prefilters for EPA | HEPA | ULPA filters (MF 90 and MF 95),
- in intake air filtration for gas turbines and turbocompressors onshore and offshore,
- as downstream “police filters” in dust removal systems,
- in sophisticated air-conditioning technology (hospitals, laboratories, libraries, museums, airports, etc.).

Features and benefits

- T 90 and T 95 pocket filters featuring innovative filter media technology provide a sustainedly high level of mechanical filtering performance under all duty conditions. The advantage for the user: maximized operational reliability.
- The filters meet the toughest requirements in terms of fine filtration and create very high clean air quality, thus making a crucial contribution to cost-efficient operation of sensitive lines and processes.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	DUST HOLDING CAPACITY (AC FINE/300 Pa) [g]	DUST HOLDING CAPACITY (AC FINE/800 Pa) [g]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
										ISO ePM1	ISO ePM2,5	ISO ePM10		
T 90 PRE 1/2 4L	53449491	289×592×650	4	3.1	1,450	600	1,000	80	ISO ePM10 75%	38	47	77	M6	8
T 90 PRE 1/1 12L	53449490	592×592×650	12	9.0	4,250	1,800	3,000	80	ISO ePM10 75%	38	47	77	M6	8
T 90 1/4 4L	53560101	289×289×650	4	1.5	850	200	300	80	ISO ePM2,5 65%	53	65	86	F7	5
T 90 1/2 4L	53560102	289×592×650	4	3.1	1,700	400	600	80	ISO ePM2,5 65%	53	65	86	F7	5
T 90 1/2H 8L	53562148	592×289×650	8	3.0	1,700	400	600	80	ISO ePM2,5 65%	53	65	86	F7	5
T 90 5/6 6L	53560099	492×592×650	6	4.7	2,600	750	1,400	80	ISO ePM2,5 65%	53	65	86	F7	5
T 90 1/1 5L	53555934	592×592×650	5	4.0	3,400	500	800	120	ISO ePM2,5 60%	51	62	86	F7	5
T 90 1/1 8L	53555918	592×592×650	8	6.0	3,400	950	1,900	80	ISO ePM2,5 65%	53	65	86	F7	5
T 90 1/1 12L	53555917	592×592×650	12	9.0	4,250	1,400	2,500	100	ISO ePM2,5 65%	54	66	86	F7	5
T 95 1/4 4L	53444165	289×289×650	4	1.5	675	150	250	140	ISO ePM1 75%	79	85	95	F8	4
T 95 1/2 4L	53444166	289×592×650	4	3.1	1,450	350	650	140	ISO ePM1 75%	79	85	95	F8	4
T 95 5/6 6L	53444167	492×592×650	6	4.7	2,200	550	1,050	140	ISO ePM1 75%	79	85	95	F8	4
T 95 1/1 12L	53444168	592×592×650	12	9.0	4,250	1,000	2,000	140	ISO ePM1 75%	79	85	95	F8	4

POCKET FILTERS

WINAIR | COARSE DUST

SPECIFICATIONS	
Filter medium	Polyester
Recommended final pressure drop	250 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

Application

The WinAir 45 coarse filters provide stable arrestance of coarse dusts, and are particularly suitable as prefilters.

Features and benefits

- Good filtration characteristics thanks to progressively structured filter media made of synthetic-organic fibers.
- Filter pockets foamed into the PU front frame, and welded in a leakproof configuration.
- Pocket forming through integrated welded seams.
- The pocket filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for ventilation and air-conditioning systems and units”.
- Free of glass-fibers, non-corroding, moisture-resistant up to 100 % relative humidity, self-extinguishing under DIN 53438 (fire class F1).
- Simple, secure installation, suitable for all commonly used mounting frames.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × H × D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY ISO ePM10 [%]	INITIAL GRAV. ARRESTANCE [%]	FILTER CLASS ACC. TO EN 779:2012
WinAir 45 1/4 4S	53393160	289 × 289 × 330	4	0.7	1200	30	ISO coarse 65%	45	66	G4
WinAir 45 1/4 4M	53393161	289 × 289 × 510	4	1.1	1200	30	ISO coarse 65%	44	68	G4
WinAir 45 1/4 4L	53393162	289 × 289 × 650	4	1.4	1250	25	ISO coarse 65%	43	69	G4
WinAir 45 1/2 3S	53390777	289 × 592 × 330	3	1.2	2050	30	ISO coarse 65%	45	66	G4
WinAir 45 1/2 3M	53390778	289 × 592 × 510	3	1.9	2050	30	ISO coarse 65%	44	68	G4
WinAir 45 1/2 3L	53390779	289 × 592 × 625	3	2.3	2050	25	ISO coarse 65%	43	69	G4
WinAir 45 5/6 4S	53390780	492 × 592 × 330	4	1.6	2700	30	ISO coarse 65%	45	66	G4
WinAir 45 5/6 4M	53390781	492 × 592 × 510	4	2.5	2700	30	ISO coarse 65%	44	68	G4
WinAir 45 5/6 4L	53390782	492 × 592 × 625	4	3.0	2700	25	ISO coarse 65%	43	69	G4
WinAir 45 1/1 5S	53390774	592 × 592 × 330	5	2.0	3400	32	ISO coarse 65%	45	66	G4
WinAir 45 1/1 5M	53390775	592 × 592 × 510	5	3.1	3400	30	ISO coarse 65%	44	68	G4
WinAir 45 1/1 5L	53390776	592 × 592 × 625	5	3.8	3400	25	ISO coarse 65%	43	69	G4

POCKET FILTERS

WINAIR | FINE DUST

SPECIFICATIONS	
Filter medium	Polyester (WinAir 50), Polyolefin (WinAir 75 and WinAir 90)
Recommended final pressure drop	450 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane
Fire class	F1 acc. to DIN 53438

Application

The WinAir fine filters create good clean air quality based on good arrestance coupled with a low pressure drop. Used as prefilters, they protect the downstream filter stages.

Features and benefits

- Very good filtration characteristics thanks to progressively structured filter media made of synthetic-organic fibers.
- Filter pockets foamed into the PU front frame, and welded in a leakproof configuration.
- Pocket forming through integrated welded seams.
- The pocket filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for ventilation and air-conditioning systems and units”.
- Free of glass-fibers, non-corroding, moisture-resistant up to 100 % relative humidity, self-extinguishing under DIN 53438 (fire class F1).
- Simple, secure installation, suitable for all commonly used mounting frames.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012
								ISO ePM1	ISO ePM2.5	ISO ePM10	
WinAir 50 1/4 4S	53393163	289×289×330	4	0.7	1200	55	ISO ePM10 55%	5	12	59	M5
WinAir 50 1/4 4M	53393169	289×289×510	4	1.1	1200	50	ISO ePM10 55%	6	14	58	M5
WinAir 50 1/4 4L	53393170	289×289×650	4	1.4	1250	45	ISO ePM10 55%	7	15	56	M5
WinAir 50 1/2 3S	53390787	289×592×330	3	1.2	2000	55	ISO ePM10 55%	5	12	59	M5
WinAir 50 1/2 3M	53390788	289×592×510	3	1.9	2000	50	ISO ePM10 55%	6	14	58	M5
WinAir 50 1/2 3L	53390794	289×592×625	3	2.3	2000	45	ISO ePM10 55%	7	15	56	M5
WinAir 50 5/6 4S	53390795	492×592×330	4	1.6	2500	55	ISO ePM10 55%	5	12	59	M5
WinAir 50 5/6 4M	53390796	492×592×510	4	2.5	2700	50	ISO ePM10 55%	6	14	58	M5
WinAir 50 5/6 4L	53390797	492×592×625	4	3.1	2700	45	ISO ePM10 55%	7	15	56	M5
WinAir 50 1/1 5S	53390783	592×592×330	5	2.0	3400	55	ISO ePM10 55%	5	12	59	M5
WinAir 50 1/1 5M	53390784	592×592×510	5	3.1	3400	50	ISO ePM10 55%	6	14	58	M5
WinAir 50 1/1 5L	53390785	592×592×625	5	3.8	3400	45	ISO ePM10 55%	7	15	56	M5
WinAir 75 1/4 4M	53393171	289×289×510	4	1.2	800	100	ISO ePM10 70%	26	38	73	M6
WinAir 75 1/4 4L	53393172	289×289×650	4	1.4	800	75	ISO ePM10 70%	27	39	74	M6
WinAir 75 1/2 4M	53390801	289×592×510	4	2.5	1700	100	ISO ePM10 70%	26	38	73	M6
WinAir 75 1/2 4L	53390802	289×592×625	4	3.0	1700	75	ISO ePM10 70%	27	39	74	M6
WinAir 75 5/6 6M	53390803	492×592×510	6	3.7	2550	100	ISO ePM10 70%	26	38	73	M6
WinAir 75 5/6 6L	53390804	492×592×625	6	4.5	2550	75	ISO ePM10 70%	27	39	74	M6
WinAir 75 1/1 8M	53390798	592×592×510	8	4.9	3400	100	ISO ePM10 70%	26	38	73	M6
WinAir 75 1/1 8L	53390799	592×592×625	8	6.0	3400	75	ISO ePM10 70%	27	39	74	M6
WinAir 90 1/4 4M	53393173	289×289×510	4	1.2	800	135	ISO ePM10 85%	51	65	87	M6
WinAir 90 1/4 4L	53393174	289×289×650	4	1.4	800	95	ISO ePM10 85%	52	66	88	M6
WinAir 90 1/2 4M	53390808	289×592×510	4	2.5	1700	135	ISO ePM10 85%	51	65	87	M6
WinAir 90 1/2 4L	53390809	289×592×625	4	3.0	1700	95	ISO ePM10 85%	52	66	88	M6
WinAir 90 5/6 6M	53390810	492×592×510	6	3.7	2550	135	ISO ePM10 85%	51	65	87	M6
WinAir 90 5/6 6L	53390811	492×592×625	6	4.5	2550	95	ISO ePM10 85%	52	66	88	M6
WinAir 90 1/1 8M	53464906	592×592×510	8	4.9	3400	135	ISO ePM10 85%	51	65	87	M6
WinAir 90 1/1 8L	53464907	592×592×625	8	6.0	3400	95	ISO ePM10 85%	52	66	88	M6

CASSETTE FILTERS

MAXIPLEAT, NANOPLEAT, EMAXX, MVP, MVPGT

In the category of cassette filters, Freudenberg Filtration Technologies offers a broad choice of products. All models are characterized by high performance capabilities: Viledon® cassette filters excel in terms of optimum media velocity with low pressure drop even at high volume flows. Plus a large dust holding capacity and exceptionally high stability of the entire filter construction for operational dependability in actual use.

Simply scan the QR code and find out more about cassette filters!

CASSETTE FILTERS

MAXIPLEAT | FINE DUST

energy efficiency performance

EUROVENT CERTIFIED PERFORMANCE AIR FILTERS www.eurovent-certification.com

SPECIFICATIONS	
Filter medium	High-strength micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	up to 70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic; without header frame (D), 25 mm header frame (N), 20.5 mm header frame (U)
Seal	Without (Z0), on request foamed-on PU seal (N1, N4)
Protection grids	On both sides, halogen-free plastic

Application

Viledon® MaxiPleat cassette filters offer maximized operational dependability and cost-efficiency for intake, exhaust and recirculating air filtration in air-conditioning systems with stringent requirements for clean air quality, particularly in the case of critical local conditions, high volume flows, restricted space available, and when process dependability does not tolerate compromises, e. g.

- in intake air filtration of turbomachinery,
- in industrial processes (chemicals, pharmaceuticals, food and beverages, optics, electronics, surface treatment technology, etc.),
- in sophisticated air-conditioning technology (laboratories, museums, airports, office buildings, etc.),
- as “police filters” in dust removal systems.

Delivery notes

MaxiPleat cassette filters are also available in 140 mm construction depth as well as with and without PU seal. An optional water barrier reduces the passage of intake water to the clean air side. Customized dimensions are available on request.

Features and benefits

- The optimum V-shaped pleat geometry of the filter medium, as created by the thermal embossing process, enables the entire filtering area to be utilized, with uniform dust loading, and a homogeneous media velocity with a low average pressure drop.
- The high dust holding capacity of the MaxiPleat filters, in conjunction with a low pressure drop and superlative constructional stability, ensures cost-efficient and dependable operation over a very long operational lifetime.
- Casting the dimensionally stable pleat package in the torsion-resistant plastic frame assures exceptional sturdiness plus high security against dust breakthrough. Gripping lugs facilitate installation and removal, and the protection grid on both sides minimizes the risk of damage to the filter medium.
- MaxiPleat filters meet in full the requirements laid down in the German guideline VDI 6022.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (H×W×D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10		
MX75-R-0592x0287x292x25-Z08N-N84	73076492	592×287×292	7.5	2,000	135	ISO ePM10 85%	48	59	85	M6	6
MX75-R-0592x0490x292x25-Z08N-N84	73076493	592×490×292	14.5	3,500	135	ISO ePM10 85%	48	59	85	M6	6
MX75-M-0592x0592x292x25-Z08N-N84	73076553	592×592×292	18.0	4,250	135	ISO ePM10 85%	48	59	85	M6	6
MX75-R-0592x0592x292x25-Z08D-N84	73076755	592×592×292	21.0	4,250	115	ISO ePM10 85%	48	59	85	M6	6
MX85-R-0287X0287X292X25-Z08N-N84	73076549	287×287×292	4.3	1,000	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-R-0592x0287x292x25-Z08N-N84	73076489	592×287×292	7.5	2,000	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-R-0592x0490x292x25-Z08N-N84	73076871	592×490×292	14.5	3,500	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-M-0592x0592x292x25-Z08N-N84	73076554	592×592×292	18.0	4,250	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-RB-0592X0592X292X25-Z08N-N84	73076550	592×592×292	18.0	4,250	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-R-0592X0592X292X25-Z08D-N84	73076517	592×592×292	21.0	4,250	120	ISO ePM2,5 65%	54	65	88	F7	5
MX95-R-0592x0287x292x25-Z08N-O84	73076486	592×287×292	7.5	2,000	150	ISO ePM1 65%	68	76	92	F8	4
MX95-R-0592x0490x292x25-Z08N-O84	73076487	592×490×292	14.5	3,500	150	ISO ePM1 65%	68	76	92	F8	4
MX95-M-0592x0592x292x25-Z08N-O84	73076795	592×592×292	18.0	4,250	150	ISO ePM1 65%	68	76	92	F8	4
MX95-MB-0592X0592X292X25-Z08N-O84	73077038	592×592×292	18.0	4,250	150	ISO ePM1 65%	68	76	92	F8	4
MX95-R-0592x0592x292x25-Z08D-O84	73076507	592×592×292	21.0	4,250	130	ISO ePM1 65%	68	76	92	F8	4
MX98-R-0592x0287x292x25-Z08N-P84	73076483	592×287×292	7.5	2,000	180	ISO ePM1 85%	85	89	97	F9	2.5
MX98-R-0592x0490x292x25-Z08N-P84	73076484	592×490×292	14.5	3,500	180	ISO ePM1 85%	85	89	97	F9	2.5
MX98-M-0592x0592x292x25-Z08N-P84	73076557	592×592×292	18.0	4,250	180	ISO ePM1 85%	85	89	97	F9	2.5
MX98-MB-0592X0592X292X25-Z08N-P84	73077019	592×592×292	18.0	4,250	180	ISO ePM1 85%	85	89	97	F9	2.5
MX98-R-0592x0592x292x25-Z08D-P84	73076692	592×592×292	21.0	4,250	145	ISO ePM1 85%	85	89	97	F9	2.5

CASSETTE FILTERS

MAXIPLEAT | EPA

SPECIFICATIONS	
Filter medium	High-strength micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	up to 70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic; without header frame (D), 25 mm header frame (N), 20.5 mm header frame (U)
Seal	Without (Z0), on request foamed-on PU seal (N1, N4)
Protection grids	On both sides, halogen-free plastic

Application

Viledon® MaxiPleat cassette filters offer maximized operational dependability and cost-efficiency for intake, exhaust and recirculating air filtration in air-conditioning systems with stringent requirements for clean air quality, particularly in the case of critical local conditions, high volume flows, restricted space available, and when process dependability does not admit of any compromises, e. g.

- in intake air filtration of turbomachinery,
- in industrial processes (chemicals, pharmaceuticals, food and beverages, optics, electronics, surface treatment technology, etc.),
- in sophisticated air-conditioning technology (laboratories, museums, airports, office buildings, etc.),
- as “police filters” in dust removal systems.

Features and benefits

- The optimum V-shaped pleat geometry of the filter medium, as created by the thermal embossing process, enables the entire filtering area to be utilized with uniform dust loading and a homogeneous media velocity with a low average pressure drop.
- The high dust holding capacity of the MaxiPleat filters, in conjunction with a low pressure drop and superlative constructional stability, ensures cost-efficient and dependable operation over a very long operational lifetime.
- Casting the dimensionally stable pleat package in the torsion-resistant plastic frame assures exceptional sturdiness plus high security against dust breakthrough. Gripping lugs facilitate installation and removal, and the protection grids on both sides minimize the risk of damage to the filter medium.
- MaxiPleat filters meet in full the requirements laid down in the German guideline VDI 6022.

Delivery notes

MaxiPleat cassette filters are also available in 140 mm construction depth as well as with and without seal. An optional water barrier reduces the passage of intake water to the clean air side. Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (H × W × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 1822:2019	FILTER CLASS ACC. TO ISO 29463	ARRESTANCE EFFICIENCY MPPS [%]	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10				
MXH10-R-0592X0287X292X25-Z08N-E84	73077006	592 × 287 × 292	7.5	2,100	240	ISO ePM1 >95%	96	97	99	E10		≥ 85	1
MXH10-M-0592x0592x292x25-Z08N-E84	73076853	592 × 592 × 292	18.0	4,250	240	ISO ePM1 >95%	96	97	99	E10		≥ 85	1
MXH10-MB-0592X0592X292X25-Z08N-E84	73077144	592 × 592 × 292	18.0	4,250	240	ISO ePM1 >95%	96	97	99	E10		≥ 85	1
MXH10-R-0592x0592x292x25-N58D-E84	73077146	592 × 592 × 292	21.0	4,250	210	ISO ePM1 >95%	96	97	99	E10		≥ 85	1
MX100-R-0592x0287x292x25-Z08N-F84	73076904	592 × 287 × 292	7.5	1,500	240	ISO ePM1 >95%	97	99	> 99	E11	ISO 15 E	≥ 95	0.5
MX100-R-0592X0490X292X25-Z08N-F84	73076481	592 × 490 × 292	14.5	2,700	240	ISO ePM1 >95%	97	99	> 99	E11	ISO 15 E	≥ 95	0.5
MX100-M-0592X0592X292X25-Z08N-F84	73076899	592 × 592 × 292	18.0	3,400	240	ISO ePM1 >95%	97	99	> 99	E11	ISO 15 E	≥ 95	0.5
MX100-MB-0592X0592X292X25-Z08N-F84	73077140	592 × 592 × 292	18.0	3,400	240	ISO ePM1 >95%	97	99	> 99	E11	ISO 15 E	≥ 95	0.5
MX100-R-0592X0592X292X25-Z08D-F84	73076687	592 × 592 × 292	21.0	3,400	210	ISO ePM1 >95%	97	99	> 99	E11	ISO 15 E	≥ 95	0.5
MX120-R-0592X0287X292X25-Z08N-L60	73076478	592 × 287 × 292	11.0	1,500	320					E12	ISO 25 E	≥ 99.5	
MX120-R-0592X0490X292X25-Z08N-L60	73076642	592 × 490 × 292	19.0	2,700	320					E12	ISO 25 E	≥ 99.5	
MX120-M-0592X0592X292X25-Z08N-L60	73076793	592 × 592 × 292	23.0	3,400	320					E12	ISO 25 E	≥ 99.5	
MX120-MB-0592X0592X292X25-Z08N-L60	73076312	592 × 592 × 292	23.0	3,400	320					E12	ISO 25 E	≥ 99.5	

CASSETTE FILTERS

MAXIPLEAT | MODULAR FILTER SYSTEM | FINE DUST

SPECIFICATIONS	
Filter medium	High-strength micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	up to 70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic; without header frame (D)
Seal	Without (Z0), glued-on gasket (W5)
Protection grids	On both sides, halogen-free plastic

Application

The Viledon® MaxiPleat modular filter system is used for intake, exhaust and recirculating air filtration in air-conditioning systems with stringent requirements for the clean air quality, particularly when the space available is restricted, e. g.

- in intake air filtration for turbomachinery,
- in industrial processes,
- in sophisticated air-conditioning technology.

With the MaxiPleat modular filter system, MaxiPleat filters of different filter classes and construction depths can be positively combined simply by clipping them on, thus enabling another filter stage to be inserted without any structural modifications.

Features and benefits

- The optimum V-shaped pleat geometry of the filter medium, as created by the thermal embossing process, enables the entire filtering area to be utilized, with uniform dust loading over the filtering area and a homogeneous media velocity with a low pressure drop.
- To install the MaxiPleat modular filter system, the MaxiPleat basic filter fitted with the black connecting pins is inserted in the existing support system. The prefilter with the white connecting caps can now be simply clipped onto the installed basic filter. The connecting pins anchored in the basic filter can no longer be detached. The clipped-on prefilter can be removed again and replaced.
- Casting the dimensionally stable pleat package in the torsion-resistant plastic frame assures exceptional sturdiness plus high security against dust breakthrough. Gripping lugs facilitate installation and removal, and the protection grids on both sides minimize the risk of damage to the filter medium.
- MaxiPleat filters meet in full the requirements laid down in VDI 6022.

Delivery notes

The MaxiPleat basic filters are supplied with connecting pins inserted (RB types).
The MaxiPleat modular prefilters (RC types) are available in 292 and 140 mm construction depths. The standard version does not include a front frame, but is delivered with a clean air side seal and connecting caps inserted.
An retaining bracket, which precludes the possibility of the prefilter becoming detached under any operating conditions, is included in the delivery package of the 292 mm types (for vertical installation). In the case of overhead installation, an additional bracket is required, which can be ordered separately. An optional water barrier reduces the passage of intake water to the clean air side.
Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (H×W×D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10		
MX75-RC-0554x0554x140x10-W58D-N45	73076963	554×554×140	12	3,400	135	ISO ePM10 85%	48	59	85	M6	6
MX75-RC-0554x0554x292x25-W58D-N84	73076534	554×554×292	18	3,400	95	ISO ePM10 85%	48	59	85	M6	6
MX85-RC-0554x0554x140x10-W58D-N45	73076963	554×554×140	12	3,400	140	ISO ePM2,5 65%	54	65	88	F7	5
MX85-RC-0554x0554x292x25-W58D-N84	73076519	554×554×292	18	3,400	100	ISO ePM2,5 65%	54	65	88	F7	5
MX95-RC-0554x0554x140x10-W58D-O45	73076688	554×554×140	12	3,400	150	ISO ePM1 65%	68	76	92	F8	4
MX95-RC-0554x0554x292x25-W58D-O84	73076535	554×554×292	18	3,400	105	ISO ePM1 65%	68	76	92	F8	4
MX98-RC-0554x0554x140x10-W58D-P45	73076919	554×554×140	12	3,400	175	ISO ePM1 85%	85	89	97	F9	2.5
MX98-RC-0554X0554X292X25-W58D-P84	73076921	554×554×292	18	3,400	125	ISO ePM1 85%	85	89	97	F9	2.5

CASSETTE FILTERS

NANOPLEAT | FINE DUST

SPECIFICATIONS	
Filter medium	HSN media technology
Recommended final pressure drop	450 Pa
Thermal stability	up to 50 °C
Moisture resistance	100 % rel. hum.
Frame	Plastic

Application

Viledon® NanoPleat filters have been developed specifically for intake, exhaust and recirculated air filtration in HVAC systems posing stringent requirements for clean air quality and cost-efficiency. They ensure clean, efficiently conditioned air

- in office buildings, production halls, airports, libraries, museums, laboratories, hospitals, old people's homes and care facilities, etc.,
- in sensitive applications for the food and beverage industries, pharmaceuticals, chemicals, optics, electronics, and medical technology, etc.

Features and benefits

- Consistently high filtration efficiency under all operating conditions thanks to the unique HSN media.
- The low pressure drop and the high dust holding capacity provide ultra-efficient, energy-saving operating characteristics, with a slow increase in the pressure drop and resultant additional lifetime reserves. This produces a significant reduction in operating costs.
- Simplified handling at installation, since the HSN medium will not be irreversibly damaged even if it comes into contact with slight pressure.
- The pleated HSN filter media, cast in a tough plastic frame in a leakproof configuration, are exceptionally sturdy and water-repellent. Even when exposed to high levels of dampness and moisture, the filter medium will not be saturated; in fact the water droplets will simply roll off the material's surface. The pressure drop remains almost unchanged even under these circumstances, thus providing maximized operational reliability.
- Viledon® NanoPleat filters are highly resistant to chemicals, microbiologically inert and meet all hygiene requirements for HVAC systems to EN 13779 and the German VDI Guideline 6022. Their microbial safety has been confirmed by the Institute for Air Hygiene in Berlin.
- The sturdy construction ensures optimum performance even under turbulent flow conditions or during load changes. This means that the risk of particle or fiber shedding is practically eliminated.
- The filter elements are free of metals and halogens, corrosion-proof and also fully incinerable and thus disposal-friendly. The frame and filter media are self-extinguishing to DIN 53438 (Fire class F1).

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
						ISO ePM1	ISO ePM2,5	ISO ePM10		
MV 75 HSN 1/2 V08X25-Z00N-A33	53429114	287×592×292	1,500	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 4/6 V08X25-Z00N-A33	53475720	402×592×292	2,100	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 5/6 V08X25-Z00N-A33	53429115	490×592×292	2,700	85	ISO ePM10 75%	33	46	79	M6	7
MV 75 HSN 1/1 V08X25-Z00N-A33	53424217	592×592×292	3,400	85	ISO ePM10 75%	33	46	79	M6	7
MV 85 HSN 1/2 V08X25-Z00N-B33	53429116	287×592×292	1,500	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 4/6 V08X25-Z00N-B33	53441273	402×592×292	2,100	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 5/6 V08X25-Z00N-B33	53429117	490×592×292	2,700	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 85 HSN 1/1 V08X25-Z00N-B33	53424218	592×592×292	3,400	100	ISO ePM2,5 70%	63	71	90	F7	5
MV 95 HSN 1/2 V08X25-Z00N-C33	53429118	287×592×292	1,500	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 4/6 V08X25-Z00N-C33	53441279	402×592×292	2,100	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 5/6 V08X25-Z00N-C33	53429124	490×592×292	2,700	110	ISO ePM1 75%	77	82	92	F8	4
MV 95 HSN 1/1 V08X25-Z00N-C33	53424229	592×592×292	3,400	110	ISO ePM1 75%	77	82	92	F8	4
MV 98 HSN 1/2 V08X25-Z00N-D33	53429135	287×592×292	1,500	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 4/6 V08X25-Z00N-D33	53490992	402×592×292	2,100	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 5/6 V08X25-Z00N-D33	53429134	490×592×292	2,700	120	ISO ePM1 80%	81	85	95	F9	3
MV 98 HSN 1/1 V08X25-Z00N-D33	53424230	592×592×292	3,400	120	ISO ePM1 80%	81	85	95	F9	3

CASSETTE FILTERS

EMAXX | FINE DUST

SPECIFICATIONS	
Filter medium	High-strength micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic

Application

Viledon® eMaxx filters are a new generation of powerful, efficient, economic and durable cassette filters offering operational reliability and cost efficiency for supply of air filtration systems which have stringent requirements for clean air quality. They are used in, e. g.

- intake air filtration for gas turbines and compressors,
- ventilation systems with highest service life requirements.

Features and benefits

- High-strength micro-glass-fiber papers with hydrophobic coating are used.
- The entire filter element is non-corroding, and fully incinerable, since it contains no metal parts. Frame and protection grids consist of halogen-free plastic.
- The 4-sided, leakproof casting of the dimensionally stable media pleat pack provides high burst strength as well as excellent security against dust penetration during operation.
- During the usage of the vertical arrangement of pleats allows drainage of water to the bottom. This results in less water saturation of the filter and reduced pressure drop increase.
- Combination of excellent dust holding capacity at low pressure drop.
- eMaxx cassette filters are supplied as standard with a foamed in place gasket and a protection grid fitted to minimize risk of damage during handling and operation.
- The filters can be used as part of the unique Viledon® modular clip-on system. They can be combined with hydroMaxx coalescer filters or with MVPGT respectively MaxiPleat cassette filters in one filter stage by simple clip-on.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10		
EMAXX 98 1/1 V08-25-N19S-D27-30m²	53541784	593 × 593 × 422	30	4,250	135	ISO ePM1 85%	86	90	96	F9	3
EMAXX 98 1/1 V08-25-Z09S-D27-30m²	53541785	593 × 593 × 422	30	4,250	135	ISO ePM1 85%	86	90	96	F9	3
EMAXX 98 B 1/1 V08-25-N19S-D27-30m²	53565761	593 × 593 × 422	30	4,250	135	ISO ePM1 85%	86	90	96	F9	3

CASSETTE FILTERS

EMAXX | EPA

SPECIFICATIONS	
Filter medium	High-strength micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 6,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic

Application

Viledon® eMaxx filters are a new generation of powerful, efficient, economic and durable cassette filters offering operational reliability and cost efficiency for supply of air filtration systems which have stringent requirements for clean air quality. They are used in, e. g.

- intake air filtration for gas turbines and compressors,
- ventilation systems with highest service life requirements.

Features and benefits

- High-strength micro-glass-fiber papers with hydrophobic coating are used.
- The entire filter element is non-corroding, and fully incinerable, since it contains no metal parts. Frame and protection grids consist of halogen-free plastic.
- The 4-sided, leakproof casting of the dimensionally stable media pleat pack provides high burst strength as well as excellent security against dust penetration during operation.
- During the usage of the vertical arrangement of pleats allows drainage of water to the bottom. This results in less water saturation of the filter and reduced pressure drop increase.
- Combination of excellent dust holding capacity at low pressure drop.
- eMaxx cassette filters are supplied as standard with a foamed in place gasket and a protection grid fitted to minimize risk of damage during handling and operation.
- The filters can be used as part of the unique Viledon® modular clip-on system. They can be combined with hydroMaxx coalescer filters or with MVPGT respectively MaxiPleat cassette filters in one filter stage by simple clip-on.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	DUST HOLDING CAPACITY (AC FINE / 650 Pa) [g]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 1822:2019	FILTER CLASS ACC. TO ISO 29463	ARRESTANCE EFFICIENCY MPPS [%]	CUT OFF PARTICLE SIZE [µm]
								ISO ePM1	ISO ePM2,5	ISO ePM10				
EMAXX E10 1/1 V08-25-Z09S-K27-30m²	53542378	592 × 592 × 422	30	4,250	195	2,000	ISO ePM1 >95%	97	98	99	E10		≥ 85	1
EMAXX E10 1/1 V08-25-N19S-K27-30m²	53541786	592 × 592 × 422	30	4,250	195	2,000	ISO ePM1 >95%	97	98	99	E10		≥ 85	1
EMAXX E10 B 1/1 V08-25-N19S-K27-30m²	53566357	592 × 592 × 422	30	4,250	195	2,000	ISO ePM1 >95%	97	98	99	E10		≥ 85	1
EMAXX E11 1/1 V08-25-Z09S-F27-30m²	53542389	592 × 592 × 422	30	3,400	170	1,800	ISO ePM1 >95%	98	99	> 99	E11	ISO 15 E	≥ 95	0.5
EMAXX E11 1/1 V08-25-N19S-F27-30m²	53541787	592 × 592 × 422	30	3,400	170	1,800	ISO ePM1 >95%	98	99	> 99	E11	ISO 15 E	≥ 95	0.5
EMAXX E11 B 1/1 V08-25-N19S-F27-30m²	53572433	592 × 592 × 422	30	3,400	170	1,800	ISO ePM1 >95%	98	99	> 99	E11	ISO 15 E	≥ 95	0.5
EMAXX E12 1/1 V08-25-Z09S-G27-30m²	53552309	592 × 592 × 422	30	3,400	250	1,300					E12	ISO 25 E	≥ 99,5	
EMAXX E12 1/1 V08-25-N19S-G27-30m²	53552257	592 × 592 × 422	30	3,400	250	1,300					E12	ISO 25 E	≥ 99,5	
EMAXX E12 B 1/1 V08-25-N19S-G27-30m²	53569111	592 × 592 × 422	30	3,400	250	1,300					E12	ISO 25 E	≥ 99,5	

CASSETTE FILTERS

MVPGT | FINE DUST

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 3,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Plastic
Seal	PU gasket, continuously foamed
Protection grids	Halogen-free plastic, on the clean air side

Application

Viledon® MVPGT cassette filters are used for intake air filtration of

- gas turbines in power generation and in the oil and gas industry,
- compressors and diesel and gas engines.

They are particularly well suited for peaking units located onshore with average dust concentrations in the ambient air.

Features and benefits

- High dust holding capacity and low pressure drop.
- Supplied with protection grids fitted to minimize risk of damage to the filter during operation and optionally with a foamed-in place gasket.
- Recessed vertical rails allow full usage of a directly attached prefilter panel resulting in longer lifetimes and lower pressure drops.
- A lug between the two inner V's allows easy handling.
- The frame offers various possibilities for the installation of clips to hold prefilters.
- Optionally installed pins can be used for combination with other pre- or final filters for a 2-in-1 system solution by using the patented Viledon® modular clip-on system.
- For high performance requirements MVPGT cassette filters are also available with an extended filter area of 21 m² or as MVPGT-L version with 30 m².

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10		
MVPGT 85 1/2 V08X25-Z09N-B33-8.5m²	53569411	287 × 592 × 292	8.5	2,000	125	ISO ePM2,5 65%	53	65	89	F7	5
MVPGT 85 1/1 V08x25-Z09N-B33-18m²	53536299	592 × 592 × 292	18	4,250	125	ISO ePM2,5 65%	53	65	89	F7	5
MVPGT 85 1/1 V08x25-N19N-B33-18m²	53536310	592 × 592 × 292	18	4,250	125	ISO ePM2,5 65%	53	65	89	F7	5
MVPGT 85 1/1 V08x25-Z09N-B27-21m²	53536333	592 × 592 × 292	21	4,250	120	ISO ePM2,5 65%	53	65	89	F7	5
MVPGT 95 1/1 V08x25-Z09N-C33-18m²	53536300	592 × 592 × 292	18	4,250	135	ISO ePM1 65%	67	76	92	F8	4
MVPGT 95 1/1 V08x25-N19N-C33-18m²	53536311	592 × 592 × 292	18	4,250	135	ISO ePM1 65%	67	76	92	F8	4
MVPGT 95 1/1 V08x25-Z09N-C27-21m²	53536334	592 × 592 × 292	21	4,250	130	ISO ePM1 65%	67	76	92	F8	4
MVPGT 95 1/1 V08x25-N19N-C27-21m²	53536338	592 × 592 × 292	21	4,250	130	ISO ePM1 65%	67	76	92	F8	4
MVPGT 95 1/1-L V08X25-N19S-C27-30m²	53568185	592 × 592 × 422	30	4,250	120	ISO ePM1 70%	70	78	93	F8	4
MVPGT 98 1/2 V08x25-N19N-D33-8.5m²	53536313	287 × 592 × 292	8.5	2,000	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1 V08x25-Z09N-D33-18m²	53536301	592 × 592 × 292	18	4,250	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1 V08x25-N19N-D33-18m²	53536329	592 × 592 × 292	18	4,250	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1 V08x25-T19N-D33-18m²	53536364	592 × 592 × 292	18	4,250	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1 V08x25-Z09N-D27-21m²	53536335	592 × 592 × 292	21	4,250	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1 V08x25-N19N-D27-21m²	53536359	592 × 592 × 292	21	4,250	155	ISO ePM1 85%	86	91	97	F9	2.5
MVPGT 98 1/1-L V08X25-N19S-D27-30m²	53567618	592 × 592 × 422	30	4,250	150	ISO ePM1 85%	86	91	97	F9	2.5

CASSETTE FILTERS

MVPGT | EPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	625 Pa
Bursting pressure	> 3,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Plastic
Seal	PU gasket, continously foamed
Protection grids	Halogen-free plastic, on the clean air side

Application

Viledon® MVPGT cassette filters are used for intake air filtration of

- gas turbines in power generation and in the oil and gas industry,
- compressors and diesel and gas engines.

They are particularly well suited for peaking units located onshore with average dust concentrations in the ambient air.

Features and benefits

- High dust holding capacity and low pressure drop.
- Supplied with protection grids fitted to minimize risk of damage to the filter during operation and optionally with a foamed-in place gasket.
- Recessed vertical rails allow full usage of a directly attached prefilter panel resulting in longer lifetimes and lower pressure drops.
- A lug between the two inner V's allows easy handling.
- The frame offers various possibilities for the installation of clips to hold prefilters.
- Optionally installed pins can be used for combination with other pre- or final filters for a 2-in-1 system solution by using the patented Viledon® modular clip-on system.
- For high performance requirements MVPGT cassette filters are also available with an extended filter area of 21 m² or as MVPGT-L version with 30 m².

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 1822:2019	ARRESTANCE EFFICIENCY MPPS [%]	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10			
MVPGT E10 1/1 V08x25-Z09N-K27-21m²	53536337	592×592×292	21.0	3,400	180	ISO ePM1 >95%	95	97	99	E10	≥85	1
MVPGT E10 1/1 V08x25-N19N-K27-21m²	53536360	592×592×292	21.0	3,400	180	ISO ePM1 >95%	95	97	99	E10	≥85	1
MVPGT E10 1/1-L V08X25-N19S-K27-30m²	53568186	592×592×422	30.0	3,400	155	ISO ePM1 >95%	95	97	99	E10	≥85	1
MVPGT E11 1/2 V08x25-Z09N-F33-8.5m²	53536302	287×592×292	8.5	1,500	210	ISO ePM1 >95%	98	99	>99	E11	≥95	0.5
MVPGT E11 1/1 V08x25-Z09N-F27-21m²	53536303	592×592×292	21.0	3,400	210	ISO ePM1 >95%	98	99	>99	E11	≥95	0.5
MVPGT E11 1/1 V08x25-N19N-F27-21m²	53536331	592×592×292	21.0	3,400	210	ISO ePM1 >95%	98	99	>99	E11	≥95	0.5
MVPGT E11 1/1-L V08X25-N19S-F27-30m²	53568187	592×592×422	30.0	3,400	180	ISO ePM1 >95%	98	99	>99	E11	≥95	0.5

CASSETTE FILTERS

MVP | FINE DUST

energy efficiency performance

EUROVENT CERTIFIED PERFORMANCE AIR FILTERS www.eurovent-certification.com

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	450 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Top frame 25 mm, plastic

Application

Viledon® MVP cassette filters are used for intake, exhaust and recirculating air filtration in air-conditioning systems, e. g. in office buildings, factory / production halls, airports, libraries, museums, laboratories, hospitals, old people's and nursing homes, etc.

Features and benefits

- MVP cassette filters excel in terms of a high dust holding capacity and low pressure drop values.
- Casting the dimensionally stable pleat package in the plastic frame assures a high degree of security against dust breakthrough over the entire operational lifetime.

Delivery notes

MVP cassette filters are available on request in filter classes E10 to E12, and with a foamed on gasket on the clean air side. Also available with 6 instead of 8 panels.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
							ISO ePM1	ISO ePM2,5	ISO ePM10		
MVP 75 1/2 V08x25-Z00N-A33	53538455	287 × 592 × 292	8.5	1,500	70	ISO ePM10 75%	34	47	79	M6	7
MVP 75 4/6 V08x25-Z00N-A33	53538456	402 × 592 × 292	11.8	2,100	70	ISO ePM10 75%	34	47	79	M6	7
MVP 75 5/6 V08x25-Z00N-A33	53538457	490 × 592 × 292	14.5	2,700	70	ISO ePM10 75%	34	47	79	M6	7
MVP 75 1/1 V08x25-Z00N-A33	53538458	592 × 592 × 292	18.0	3,400	70	ISO ePM10 75%	34	47	79	M6	7
MVP 85 1/2 V08x25-Z00N-B33	53538464	287 × 592 × 292	8.5	1,500	80	ISO ePM2,5 70%	63	73	90	F7	5
MVP 85 4/6 V08x25-Z00N-B33	53538465	402 × 592 × 292	11.8	2,100	80	ISO ePM2,5 70%	63	73	90	F7	5
MVP 85 5/6 V08x25-Z00N-B33	53538466	490 × 592 × 292	14.5	2,700	80	ISO ePM2,5 70%	63	73	90	F7	5
MVP 85 1/1 V08x25-Z00N-B33	53538467	592 × 592 × 292	18.0	3,400	80	ISO ePM2,5 70%	63	73	90	F7	5
MVP 95 1/2 V08x25-Z00N-C33	53538468	287 × 592 × 292	8.5	1,500	95	ISO ePM1 70%	74	81	92	F8	4
MVP 95 4/6 V08x25-Z00N-C33	53538469	402 × 592 × 292	11.8	2,100	95	ISO ePM1 70%	74	81	92	F8	4
MVP 95 5/6 V08x25-Z00N-C33	53538470	490 × 592 × 292	14.5	2,700	95	ISO ePM1 70%	74	81	92	F8	4
MVP 95 1/1 V08x25-Z00N-C33	53538471	592 × 592 × 292	18.0	3,400	95	ISO ePM1 70%	74	81	92	F8	4
MVP 98 1/2 V08x25-Z00N-D33	53538472	287 × 592 × 292	8.5	1,500	115	ISO ePM1 85%	87	92	97	F9	2.5
MVP 98 4/6 V08x25-Z00N-D33	53538473	402 × 592 × 292	11.8	2,100	115	ISO ePM1 85%	87	92	97	F9	2.5
MVP 98 5/6 V08x25-Z00N-D33	53538479	490 × 592 × 292	14.5	2,700	115	ISO ePM1 85%	87	92	97	F9	2.5
MVP 98 1/1 V08x25-Z00N-D33	53538480	592 × 592 × 292	18.0	3,400	115	ISO ePM1 85%	87	92	97	F9	2.5
MVP 75 1/2 V06x25-Z00N-A33	53539102	287 × 592 × 292	6.5	1,500	70	ISO ePM10 75%	32	45	76	M6	7
MVP 75 5/6 V06x25-Z00N-A33	53539105	490 × 592 × 292	11.5	2,700	70	ISO ePM10 75%	32	45	76	M6	7
MVP 75 1/1 V06x25-Z00N-A33	53539106	592 × 592 × 292	14	3,400	70	ISO ePM10 75%	32	45	76	M6	7
MVP 85 1/2 V06x25-Z00N-B33	53539107	287 × 592 × 292	6.5	1,500	80	ISO ePM2,5 70%	61	71	88	F7	5
MVP 85 5/6 V06x25-Z00N-B33	53539108	490 × 592 × 292	11.5	2,700	80	ISO ePM2,5 70%	61	71	88	F7	5
MVP 85 1/1 V06x25-Z00N-B33	53539109	592 × 592 × 292	14	3,400	80	ISO ePM2,5 70%	61	71	88	F7	5
MVP 95 1/2 V06x25-Z00N-C33	53539111	287 × 592 × 292	6.5	1,500	100	ISO ePM1 70%	72	79	92	F8	4
MVP 95 5/6 V06x25-Z00N-C33	53539112	490 × 592 × 292	11.5	2,700	100	ISO ePM1 70%	72	79	92	F8	4
MVP 95 1/1 V06x25-Z00N-C33	53539113	592 × 592 × 292	14	3,400	100	ISO ePM1 70%	72	79	92	F8	4
MVP 98 1/2 V06x25-Z00N-D33	53539114	287 × 592 × 292	6.5	1,500	135	ISO ePM1 80%	81	85	92	F9	3
MVP 98 5/6 V06x25-Z00N-D33	53539116	490 × 592 × 292	11.5	2,700	135	ISO ePM1 80%	81	85	92	F9	3
MVP 98 1/1 V06x25-Z00N-D33	53539117	592 × 592 × 292	14	3,400	135	ISO ePM1 80%	81	85	92	F9	3

CASSETTE FILTERS

MVP AX | FINE DUST

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	450 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Top frame 25 mm, plastic, electrically conductive

Ex

Application

Viledon® MVP AX cassette filters are used for recirculating air filtration in spray booths and for air-conditioning systems. They have been tested by an accredited testing laboratory for suitability for use in potentially explosive atmospheres. A manufacturer's attestation is available for each product, indicating the allowed area of application.

Features and benefits

- MVP AX cassette filters excel in terms of a high dust holding capacity and low pressure drop values.
- Casting the dimensionally stable pleat package in the plastic frame assures a high degree of security against dust breakthrough over the entire operational lifetime.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012
							ISO ePM1	ISO ePM2,5	ISO ePM10	
MVP AX 85 1/2 V08X25-Z00N-B33	53568169	287 × 592 × 292	8.5	1,500	80	ISO ePM2,5 70%	61	71	90	F7
MVP AX 85 1/1 V08X25-Z00N-B33	53568166	592 × 592 × 292	18.0	3,400	80	ISO ePM2,5 70%	61	71	90	F7
MVP AX 95 1/2 V08X25-Z00N-C33	53568171	287 × 592 × 292	8.5	1,500	95	ISO ePM1 70%	72	80	92	F8
MVP AX 95 1/1 V08X25-Z00N-B33	53568167	592 × 592 × 292	18.0	3,400	95	ISO ePM1 70%	72	80	92	F8
MVP AX 98 1/2 V08X25-Z00N-D33	53568172	287 × 592 × 292	8.5	1,500	115	ISO ePM1 80%	81	85	92	F9
MVP AX 98 1/1 V08X25-Z00N-D33	53568168	592 × 592 × 292	18.0	3,400	115	ISO ePM1 80%	81	85	92	F9

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME, PLASTIC FRAME, MDF FRAME, HIGH VOLUME FLOW, CARTRIDGE, ALUMINUM PLENUM HOOD, ACCESSORIES

Whether EPA, HEPA or ULPA filters: all Viledon® models guarantee effective protection for sensitive products and processes, by dependably arresting critical particles from intake and recirculating air flows in accordance with EN 1822. Even when subjected to high volume flows, they ensure optimum media velocity coupled with low pressure drop.

Simply scan the QR code and find out more about HEPA filters!

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTHS 68 + 78 + 88 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® HEPA filters of filter classes H13 + H14 are used in intake and recirculating air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in sensitive and highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food / beverage, micro-electronics, etc.),
- in ceiling outlets and modules for flexible cleanroom systems.

Delivery notes

Customized dimensions and other filter classes are available on request. All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

Features and benefits

- High-efficiency micro-glass-fiber papers are used as filter media.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- Protection grids on both sides made of powdercoated expanded metal.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-A-0305x0610x068x05-N13N	53417676	305×610×68	50	580	250	ISO 35 H	H13	≥ 99.95
SF13-A-0305x0610x078x06-N13N	53424124	305×610×68	60	600	210	ISO 35 H	H13	≥ 99.95
SF13-A-0305x0762x068x05-N13N	53417677	305×762×68	50	730	250	ISO 35 H	H13	≥ 99.95
SF13-A-0305x0762x078x06-N13N		305×762×68	60	750	210	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x068x05-N13N	53417679	457×457×68	50	660	250	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x078x06-N13N	53419810	457×457×68	60	680	210	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x068x05-N13N	53417681	610×610×68	50	1,200	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x078x06-N13N	53419811	610×610×78	60	1,200	210	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0762x068x05-N13N	53417683	610×762×68	50	1,500	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0762x078x06-N13N		610×762×68	60	1,500	210	ISO 35 H	H13	≥ 99.95
SF13-A-0610x1220x068x05-N13N	53417686	610×1,220×68	50	2,400	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x1220x078x06-N13N	53419812	610×1,220×68	60	2,400	210	ISO 35 H	H13	≥ 99.95
SF14-A-0305x0610x068x05-N13N	53411816	305×610×68	50	280	120	ISO 45 H	H14	≥ 99.995
SF14-A-0305x0610x078x06-N13N		305×610×68	60	280	100	ISO 45 H	H14	≥ 99.995
SF14-A-0305x0610x088x07-N13N	53423973	305×610×88	70	300	90	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x068x05-N13N	53411822	610×610×68	50	600	120	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x078x06-N13N	53419813	610×610×78	60	600	100	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x088x07-N13N	53411851	610×610×88	70	600	90	ISO 45 H	H14	≥ 99.995
SF14-A-0610x1220x068x05-N13N	53411835	610×1,220×68	50	1,200	120	ISO 45 H	H14	≥ 99.995
SF14-A-0610x1220x078x06-N13N	53415898	610×1,220×78	60	1,200	100	ISO 45 H	H14	≥ 99.995
SF14-A-0610x1220x088x07-N13N	53411853	610×1,220×88	70	1,200	90	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 110 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® HEPA filters of filter classes H13 + H14 are used in intake, exhaust and recirculating air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.
- Each filter element is tested for leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

Delivery notes

Customized dimensions and other filter classes are available on request. All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-A-0305x0610x110x09-N13N	305 × 610 × 110	90	1,000	250	ISO 35 H	H13	≥ 99.95
SF13-A-0305x0762x110x09-N13N	305 × 762 × 110	90	1,250	250	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x110x09-N13N	457 × 457 × 110	90	1,100	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x110x09-N13N	610 × 610 × 110	90	2,000	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0762x110x09-N13N	610 × 762 × 110	90	2,500	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x1120x110x09-N13N	610 × 1,120 × 110	90	3,650	250	ISO 35 H	H13	≥ 99.95
SF14-A-0305x0610x110x09-N13N	305 × 610 × 110	90	280	75	ISO 45 H	H14	≥ 99.995
SF14-A-0305x0762x110x09-N13N	305 × 762 × 110	90	360	75	ISO 45 H	H14	≥ 99.995
SF14-A-0457x0457x110x09-N13N	457 × 457 × 110	90	335	75	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x110x09-N13N	610 × 610 × 110	90	600	75	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0762x110x09-N13N	610 × 762 × 110	90	750	75	ISO 45 H	H14	≥ 99.995
SF14-A-0610x1120x110x09-N13N	610 × 1,120 × 110	90	1,200	75	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 150 MM | PLEAT DEPTH 50 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® HEPA filters of filter classes H13 + H14 are used in intake and recirculating air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.),
- in ceiling outlets and modules for flexible cleanroom systems.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-A-0305x0610x150x05-N13N	53504395	305 × 610 × 150	50	580	250	ISO 35 H	H13	≥ 99.95
SF13-A-0305x0762x150x05-N13N		305 × 762 × 150	50	730	250	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x150x05-N13N	53483178	457 × 457 × 150	50	660	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x150x05-N13N		610 × 610 × 150	50	1,200	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0762x150x05-N13N		610 × 762 × 150	50	1,500	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x1220x150x05-N13N		610 × 1,220 × 150	50	2,400	250	ISO 35 H	H13	≥ 99.95
SF14-A-0305x0610x150x05-N13N	53419150	305 × 610 × 150	50	280	120	ISO 45 H	H14	≥ 99.995
SF14-A-0305x0762x150x05-N13N		305 × 762 × 150	50	360	120	ISO 45 H	H14	≥ 99.995
SF14-A-0457x0457x150x05-N13N	53529614	457 × 457 × 150	50	335	120	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x150x05-N13N	53447039	610 × 610 × 150	50	600	120	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0762x150x05-N13N	53561555	610 × 762 × 150	50	750	120	ISO 45 H	H14	≥ 99.995
SF14-A-0610x1220x150x05-N13N	53431510	610 × 1,220 × 150	50	1,200	120	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUTION DEPTH 150 MM | PLEAT DEPTH 125 MM | EPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® EPA filters are used in intake, exhaust and recirculating air filtration in cleanrooms in air-conditioning systems with stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF11-A-0305x0610x150x12-N13N	305×610×150	125	750	140	ISO 15 E	E11	95
SF11-A-0457x0457x150x12-N13N	457×457×150	125	850	140	ISO 15 E	E11	95
SF11-A-0610x0610x150x12-N13N	610×610×150	125	1,500	140	ISO 15 E	E11	95

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 150 MM | PLEAT DEPTH 125 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® HEPA filters are used in intake, exhaust and recirculating air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.
- Each filter element is tested for leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-A-0305x0610x150x12-N13N	53504395	305 × 610 × 150	125	860	250	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x150x12-N13N		457 × 457 × 150	125	950	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x150x12-N13N	53474179	610 × 610 × 150	125	1,750	250	ISO 35 H	H13	≥ 99.95
SF14-A-0305x0610x150x12-N13N		305 × 610 × 150	125	950	250	ISO 45 H	H14	≥ 99.995
SF14-A-0457x0457x150x12-N13N		457 × 457 × 150	125	1,100	250	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x150x12-N13N	53502176	610 × 610 × 150	125	2,000	250	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 292 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Semicircular PU profile, endlessly foamed
Protection grids	On both sides, steel grid, powder-coated

Application

Viledon® HEPA filters are used in intake, exhaust and recirculating air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.).

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- Each filter element is tested for leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-A-0305x0610x292x17-N13N	305 × 610 × 292	175	1,250	250	ISO 35 H	H13	≥ 99.95
SF13-A-0457x0457x292x17-N13N	457 × 457 × 292	175	1,400	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0610x292x17-N13N	610 × 610 × 292	175	2,600	250	ISO 35 H	H13	≥ 99.95
SF13-A-0610x0762x292x17-N13N	610 × 762 × 292	175	3,250	250	ISO 35 H	H13	≥ 99.95
SF14-A-0305x0610x292x17-N13N	305 × 610 × 292	175	1,100	230	ISO 45 H	H14	≥ 99.995
SF14-A-0457x0457x292x17-N13N	457 × 457 × 292	175	1,300	230	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0610x292x17-N13N	610 × 610 × 292	175	2,400	230	ISO 45 H	H14	≥ 99.995
SF14-A-0610x0762x292x17-N13N	610 × 762 × 292	175	3,000	230	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 80 MM | SILGEL SEAL | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Silgel
Protection grids	On both sides, steel grids, powder-coated; also available in a stainless steel version

Application

Viledon® HEPA filters of filter class H14 are used in intake and recirculating air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food / beverage, micro-electronics, etc.),
- in ceiling outlets and modules for flexible cleanroom systems.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.
- Silgel seal for mounting systems with a sword profile.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF14-A-0305x0610x080x05-F13N	53434645	305×610×80	50	280	120	ISO 45 H	H14	≥99.995
SF14-A-0305x0762x080x05-F13N	53535195	305×762×80	50	360	120	ISO 45 H	H14	≥99.995
SF14-A-0457x0457x080x05-F13N	53439022	457×457×80	50	335	120	ISO 45 H	H14	≥99.995
SF14-A-0610x0610x080x05-F13N	53428407	610×610×80	50	600	120	ISO 45 H	H14	≥99.995
SF14-A-0610x0762x080x05-F13N	53433125	610×762×80	50	750	120	ISO 45 H	H14	≥99.995
SF14-A-0610x1220x080x05-F13N	53429243	610×1,220×80	50	1,200	120	ISO 45 H	H14	≥99.995

EPA / HEPA / ULPA FILTERS

ALUMINUM FRAME | CONSTRUCTION DEPTH 80 MM | SILGEL SEAL | ULPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Extruded aluminum profile, anodized
Seal	Silgel
Protection grids	On both sides, steel grids, powder-coated; also available in a stainless steel version

Application

Viledon® ULPA filters of filter class U15 are used in intake and recirculating air filtration for cleanrooms and in laminar flow boxes with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food / beverage, micro-electronics, etc.),
- in ceiling outlets and modules for flexible cleanroom systems.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of extruded, anodized aluminum and is extremely solid and moisture-resistant.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting thanks to high twist strength.
- The filter elements feature protection grids on both sides are made of powdercoated expanded metal.
- Silgel seal for mounting systems with a sword profile.

Delivery notes

Customized dimensions and other filter classes are available on request.
All standard sizes are packed waterproof in foil and shockproof in especially robust cardboard for risk-free transport and storage. A second label for documentation is enclosed.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF15-A-0305x0610x080x05-F13N		305×610×80	50	280	150	ISO 55 U	U15	≥ 99.9995
SF15-A-0305x0762x080x05-F13N		305×762×80	50	360	150	ISO 55 U	U15	≥ 99.9995
SF15-A-0457x0457x080x05-F13N		457×457×80	50	335	150	ISO 55 U	U15	≥ 99.9995
SF15-A-0610x0610x080x05-F13N	53525727	610×610×80	50	600	150	ISO 55 U	U15	≥ 99.9995
SF15-A-0610x0762x080x05-F13N		610×762×80	50	750	150	ISO 55 U	U15	≥ 99.9995
SF15-A-0610x1220x080x05-F13N	53449347	610×1,220×80	50	1,200	150	ISO 55 U	U15	≥ 99.9995

EPA / HEPA / ULPA FILTERS

PLASTIC FRAME | CONSTRUCTION DEPTHS 150 + 292 MM | EPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper, highly resistant to moisture and oils
Bursting pressure	> 3,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic; on request also with frame made from galvanized steel or stainless steel sheeting
Seal	PU semicircular profile gasket, endlessly foamed-on, on one-side; on request with rectangular flat gasket, glued on
Protection grids	Plastic on both sides (N18N), with 200 mm pleat depth standard version without protection grid (N10N)

Application

Viledon® EPA filters of filter class E11 are used for intake, exhaust and recirculating air filtration of ventilation systems with special requirements for clean air quality, e. g.

- sophisticated air-conditioning applications (hospitals, labs, cleanrooms, museums, etc.),
- sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverages, micro-electronics, etc.),
- downstream policing filters in dust removal applications,
- as final filter stage for separation of fine aerosols (oil mist, cooling lubricants etc.).

Features and benefits

- The patented thermal embossing technique ensures the optimum V-shaped geometry and equidistance of the pleats and therefore maximum, homogeneous air passage at a very low pressure drop. This results in a remarkably economical and reliable operation.
- The frame consists of halogen-free plastic and is exceptionally distortion-resistant, moisture-resistant and fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Easy handling and mounting, thanks to exceptionally low weight.
- Viledon® EPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.

Delivery notes

Customized dimensions are available on request.
Also available in 292 mm construction depth as MaxiPleat filters with and without a top frame.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
							ISO ePM1	ISO ePM2,5	ISO ePM10			
SF11-K-0305x0305x150x10-N18N-F45	73076756	305 × 305 × 150	100	440	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0457x0457x150x10-N10N-F45	73076640	457 × 457 × 150	100	1,100	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0610x150x10-N10N-F45	73076648	610 × 610 × 150	100	2,000	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0610x150x10-N18N-F45	73076882	610 × 610 × 150	100	2,000	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0305x292x20-N10N-F60	73076885	610 × 305 × 292	200	1,400	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0610x292x20-N10N-F60	73076460	610 × 610 × 292	200	3,000	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0762x292x20-N10N-F60	73076469	610 × 762 × 292	200	4,000	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0305x292x27-N18N-F60	73076456	610 × 305 × 292	270	1,550	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0610x292x27-N18N-F60	73076455	610 × 610 × 292	270	3,400	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95
SF11-K-0610x0762x292x27-N18N-F60	73076632	610 × 762 × 292	270	4,300	160	ISO ePM1 >95%	97	99	> 99	ISO 15 E	E11	≥ 95

EPA / HEPA / ULPA FILTERS

PLASTIC FRAME | CONSTRUCTION DEPTHS 150 + 292 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper, highly resistant to moisture and oils
Bursting pressure	> 3,000 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Halogen-free plastic; on request also with frame made of galvanized steel or stainless steel sheeting
Seal	PU semicircular profile gasket, endlessly foamed-on, on one-side; on request with rectangular flat gasket, glued on
Protection grids	Plastic on both sides (N18N), with 200 mm pleat depth standard version without protection grid (N10N)

Application

Viledon® HEPA filters of filter classes H13 + H14 are used in intake, exhaust and recirculating air filtration in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning applications (operating theatres / intensive care units in hospitals, labs, cleanrooms etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverages, micro-electronics, etc.),
- in the treatment of dangerous substances (asbestos disposal, heavy metals, carcinogenic dusts etc.),
- as downstream policing filters in dust removal applications,
- as final filter stage for separation of fine aerosols (oil mist, cooling lubricants etc.).

Features and benefits

- The patented thermal embossing process ensures the optimum V-shaped geometry and equidistance of the pleats, and therefore maximum, homogeneous air passage at a very low pressure drop. This results in a remarkably economical and reliable operation.
- The frame consists of halogen-free plastic and is exceptionally distortion-resistant, moisture-resistant and fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Easy handling and mounting thanks to exceptionally low weight.
- Viledon® HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Each filter element is leakproofed in accordance with EN 1822, and delivered together with the corresponding test certificate.
- Filters with a pleat depth of 270 mm meet the requirements laid down in DIN EN 60335-2-69 for filters being used in dust-eliminating machines and equipment of dust class “H”.

Delivery notes

Customized dimensions and other filter classes are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	DUST CLASS	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-K-0305x0305x150x10-N10N-Q45	73076498	305 × 305 × 150	100	325	220		ISO 35 H	H13	≥ 99.95
SF13-K-0305x0305x292x27-N18N-Q60	73076473	305 × 305 × 292	270	700	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0457x0457x150x10-N18N-Q45	73076651	457 × 457 × 150	100	800	220		ISO 35 H	H13	≥ 99.95
SF13-K-0457x0457x292x27-N18N-Q60	73076627	457 × 457 × 292	270	1,800	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0592x0592x292x27-N18N-Q60	73076716	592 × 592 × 292	270	3,000	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0610x0305x150x10-N18N-Q45	73076501	610 × 305 × 150	100	700	220		ISO 35 H	H13	≥ 99.95
SF13-K-0610x0305x292x27-N18N-Q60	73076454	610 × 305 × 292	270	1,550	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0610x0305x292x27-N18N-J60	73076730	610 × 305 × 292	270	1,800	330		ISO 35 H	H13	≥ 99.95
SF13-K-0610x0457x292x27-N18N-Q60	73076499	610 × 457 × 292	270	2,500	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0610x0610x150x10-N10N-Q45	73076472	610 × 610 × 150	100	1,500	220		ISO 35 H	H13	≥ 99.95
SF13-K-0610x0610x292x27-N18N-Q60	73076453	610 × 610 × 292	270	3,400	250	H	ISO 35 H	H13	≥ 99.95
SF13-K-0610x0762x292x27-N18N-Q60	73076696	610 × 762 × 292	270	4,300	250	H	ISO 35 H	H13	≥ 99.95
SF14-K-0305x0305x292x27-N18N-J60	73076751	305 × 305 × 292	270	375	150		ISO 45 H	H14	≥ 99.995
SF14-K-0457x0457x292x27-N18N-J60	73076881	457 × 457 × 292	270	900	150		ISO 45 H	H14	≥ 99.995
SF14-K-0610x0305x292x27-N18N-J60	73076504	610 × 305 × 292	270	850	150		ISO 45 H	H14	≥ 99.995
SF14-K-0610x0457x292x27-N18N-J60	73076638	610 × 457 × 292	270	1,250	150		ISO 45 H	H14	≥ 99.995
SF14-K-0610x0610x292x27-N18N-J60	73076463	610 × 610 × 292	270	1,700	150		ISO 45 H	H14	≥ 99.995
SF14-K-0610x0762x292x27-N18N-J60	73076873	610 × 762 × 292	270	2,150	150		ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

MDF FRAME | CONSTRUCTION DEPTH 78 + 150 MM | EPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	MDF
Seal	Semicircular PU profile, endlessly foamed

Application

Viledon® EPA filters of filter class E11 are used in intake, exhaust and recirculating air filtration in air-conditioning systems with stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters, intensive care units in hospitals, laboratories, cleanrooms, etc.),
- in sensitive industrial processes,
- as final filters in ceiling air outlets.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- The frame consists of MDF (medium-density fiber board) and is fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Endlessly and homogeneously foamed-on polyurethane seal; on request also available with a flat gasket.
- Protection grid on request.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF11-M-0305x0610x078x05-N10N		305×610×78	50	480	160	ISO 15 E	E11	≥ 95
SF11-M-0305x0610x150x12-N10N		305×610×150	125	750	140	ISO 15 E	E11	≥ 95
SF11-M-0305x0762x078x05-N10N		305×762×78	50	600	160	ISO 15 E	E11	≥ 95
SF11-M-0305x0762x150x12-N10N		305×762×150	125	950	140	ISO 15 E	E11	≥ 95
SF11-M-0457x0457x078x05-N10N		457×457×78	50	550	160	ISO 15 E	E11	≥ 95
SF11-M-0457x0457x150x12-N10N	53417782	457×457×150	125	850	140	ISO 15 E	E11	≥ 95
SF11-M-0610x0610x078x05-N10N	53424911	610×610×78	50	1,000	160	ISO 15 E	E11	≥ 95
SF11-M-0610x0610x150x12-N10N		610×610×150	125	1,500	140	ISO 15 E	E11	≥ 95
SF11-M-0610x0762x078x05-N10N		610×762×78	50	1,300	160	ISO 15 E	E11	≥ 95
SF11-M-0610x0762x150x12-N10N		610×762×150	125	2,100	140	ISO 15 E	E11	≥ 95

EPA / HEPA / ULPA FILTERS

MDF FRAME | CONSTRUCTION DEPTH 78 + 150 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	MDF
Seal	Semicircular PU profile, endlessly foamed

Application

Viledon® HEPA filters of filter classes H13 + H14 are used in intake, exhaust and recirculating air filtration in air-conditioning systems with stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters, intensive care units in hospitals, laboratories, cleanrooms, etc.),
- in sensitive and highly sensitive industrial processes,
- as final filters in ceiling air outlets.

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.
- Each filter element is tested for leak-proofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of MDF (medium-density fiber panel) and is fully incinerable.
- The entire filter element is non-corroding and easy to dispose of, as it is metal-free.
- Endlessly and homogeneously foamed-on polyurethane seal; on request also available with a flat gasket.
- Protection grids on request.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×L×D) [mm]	PLEAT DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-M-0305x0610x078x05-N10N	53441454	305×610×78	50	550	250	ISO 35 H	H13	≥ 99.95
SF13-M-0305x0610x150x12-N10N	53422592	305×610×150	125	820	250	ISO 35 H	H13	≥ 99.95
SF13-M-0457x0457x078x05-N10N	53426194	457×457×78	50	630	250	ISO 35 H	H13	≥ 99.95
SF13-M-0457x0457x150x12-N10N	53417783	457×457×150	125	950	250	ISO 35 H	H13	≥ 99.95
SF13-M-0610x0610x078x05-N10N	53514483	610×610×78	50	1,200	250	ISO 35 H	H13	≥ 99.95
SF13-M-0610x0610x150x12-N10N	53418132	610×610×150	125	1,700	250	ISO 35 H	H13	≥ 99.95
SF13-M-0610x0762x078x05-N10N		610×762×78	50	1,500	250	ISO 35 H	H13	≥ 99.95
SF13-M-0610x0762x150x12-N10N		610×762×150	125	2,200	250	ISO 35 H	H13	≥ 99.95
SF14-M-0305x0610x078x05-N10N	53447557	305×610×78	50	280	125	ISO 45 H	H14	≥ 99.995
SF14-M-0305x0610x150x12-N10N		305×610×150	125	430	125	ISO 45 H	H14	≥ 99.995
SF14-M-0457x0457x078x05-N10N	53424912	457×457×78	50	335	125	ISO 45 H	H14	≥ 99.995
SF14-M-0457x0457x150x12-N10N	53467596	457×457×150	125	500	125	ISO 45 H	H14	≥ 99.995
SF14-M-0610x0610x078x05-N10N	53424924	610×610×78	50	600	125	ISO 45 H	H14	≥ 99.995
SF14-M-0610x0610x150x12-N10N	53469685	610×610×150	125	900	125	ISO 45 H	H14	≥ 99.995
SF14-M-0610x0762x078x05-N10N		610×762×78	50	750	125	ISO 45 H	H14	≥ 99.995
SF14-M-0610x0762x150x12-N10N		610×762×150	125	1,200	125	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

HIGH VOLUME FLOW | CONSTRUCTION DEPTH 292 MM | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Steel sheeting, galvanized; also available with a stainless steel frame
Seal	Semicircular PU profile, endlessly foamed, einseitig

Application

Viledon® high volume flow HEPA filters are used in intake, exhaust and recirculating air filtration in cleanrooms in air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, pharmacies, sterile rooms, labs, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.).

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed, plus the V-shaped configuration of the pleat package, ensure a particularly large filtering area for maximum air flow rate per filter element together with homogeneous media velocity, coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation with a very long lifetime.
- Each filter element is tested for leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame consists of galvanized steel or stainless steel sheeting and is extremely solid and moisture-resistant.
- Viledon® high volume flow HEPA filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units.”
- A continuous and homogeneously foamed-on profile gasket made of polyurethane. Also available with a flat gasket on request.
- The elements feature recessed grips at the side and a gripping lug for easier handling and installation.

Delivery notes

Also available as ULPA filter.
Customized dimensions and variants available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF13-B-0288x0593x292/V06x25-N10N	53412638	288 × 593 × 292	1,800	250	ISO 35 H	H13	≥ 99.95
SF13-B-0305x0305x292/V06x25-N10N	53411980	305 × 305 × 292	1,000	250	ISO 35 H	H13	≥ 99.95
SF13-B-0305x0610x292/V06x25-N10N	53412052	305 × 610 × 292	2,000	250	ISO 35 H	H13	≥ 99.95
SF13-B-0593x0593x292/V12x25-N10N	53412644	593 × 593 × 292	3,600	250	ISO 35 H	H13	≥ 99.95
SF13-B-0610x0610x292/V10x25-N10N	53412060	610 × 610 × 292	3,400	250	ISO 35 H	H13	≥ 99.95
SF13-B-0610x0610x292/V12x25-N10N	53412054	610 × 610 × 292	4,000	250	ISO 35 H	H13	≥ 99.95
SF13-B-0610x0762x292/V14x25-N10N	53412056	610 × 762 × 292	4,700	250	ISO 35 H	H13	≥ 99.95
SF14-B-0288x0593x292/V06x25-N10N	53417294	288 × 593 × 292	1,800	320	ISO 45 H	H14	≥ 99.995
SF14-B-0305x0305x292/V06x25-N10N	53415772	305 × 305 × 292	1,000	320	ISO 45 H	H14	≥ 99.995
SF14-B-0305x0610x292/V06x25-N10N	53418697	305 × 610 × 292	2,000	320	ISO 45 H	H14	≥ 99.995
SF14-B-0593x0593x292/V12x25-N10N	53429101	593 × 593 × 292	3,600	320	ISO 45 H	H14	≥ 99.995
SF14-B-0610x0610x292/V12x25-N10N	53412194	610 × 610 × 292	4,000	320	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

CARTRIDGE | EPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Sheathing	Expanded metal
Seal	Semicircular PU profile, foamed

Application

Viledon® EPA cartridge filters offer in a minimized space highly efficient arrestance in a compactly dimensioned unit. They are used for various applications in medical technology and the pharmaceutical industry.

Features and benefits

- High-arrestance micro-fiber papers are used as filter media.
- Compactly dimensioned unit for highly efficient arrestance in a minimized space.
- The sheathing of powder-coated expanded metal protect the filter media from damage.
- Endlessly and homogeneously foamed-on polyurethane seal.
- Viledon® EPA cartridge filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.

Delivery notes

Customized dimensions are available on request.

ARTICLE	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SP11-A-0175x0175	175 / 175	130	120	ISO 15 E	E11	≥ 95
SP11-A-0175x0226	175 / 226	170	120	ISO 15 E	E11	≥ 95

EPA / HEPA / ULPA FILTERS

CARTRIDGE | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Sheathing	Expanded metal
Seal	Semicircular PU profile, foamed

Application

Viledon® HEPA cartridge filters offer in a minimized space highly efficient arrestance in a compactly dimensioned unit. They are used for various applications in medical technology and the pharmaceutical industry.

Features and benefits

- Each HEPA filter element is tested for leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- High-arrestance micro-fiber papers are used as filter media.
- The sheathing of powder-coated expanded metal protect the filter media from damage.
- Endlessly and homogeneously foamed-on polyurethane seal.
- Viledon® HEPA cartridge filters are microbiologically inactive and meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.

Delivery notes

Customized dimensions are available on request.

ARTICLE	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SP13-A-0175x0175x033x02-N11N-J25	175 / 175	130	200	ISO 35 H	H13	≥ 99.95
SP13-A-0175x0226x033x02-N11N-J25	175 / 226	170	200	ISO 35 H	H13	≥ 99.95

EPA / HEPA / ULPA FILTERS

ALUMINUM PLENUM HOOD | HEPA

SPECIFICATIONS	
Filter medium	Micro-glass-fiber paper
Initial pressure drop	at 0.45 m / s 140 Pa
Recommended final pressure drop	600 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.

Application

Viledon® HEPA filters / hood modules of filter class H14 are used for intake and recirculating air filtration of cleanrooms and flexible cleanroom systems requiring the highest clean air quality and sterility, e. g.

- in hospitals / medical institutes, pharmacies, sterile rooms, laboratories, research centers, etc.,
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.).

Features and benefits

- The filter media used are high-arrestance micro-glass-fiber papers.
- The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation, and a quasi-laminar outflow.
- Each filter element is tested using state-of-the-art scanning equipment for arrestance efficiency and leakproofing in accordance with EN 1822, and delivered together with the corresponding test certificate.
- The frame is made of extruded anodized aluminium, with an airtight, cast-in aluminum plenum hood on the upstream side. An integrated perforated deflector plate equalizes the incoming air flow (minimum filter size 610 × 610 mm). The sturdy construction is moisture-resistant and offers high security against the growth of bacteria and moulds.
- Easy handling and mounting, as the units are distortion-resistant and exceptionally lightweight.
- The filter / hood modules feature a protection grid on the clean air side made from powder-coated expanded metal and a connection for measuring aerosol / pressure drop.

Delivery notes

On request also with integrated control and stop valve plus clean air side flat gasket.
Also available as ULPA filter of class U15. Customized dimensions (then with metal hood) available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	NOMINAL VOLUME FLOW [m³ / h]	FILTER CLASS ACC. TO ISO 29463	FILTER CLASS ACC. TO EN 1822	ARRESTANCE EFFICIENCY MPPS [%]
SF14-A-0305X0610X150X05-Z02H-AL-250X50	53562882	305 × 610 × 150	280	ISO 45 H	H14	≥ 99.995
SF14-A-0610X0610X150X05-Z02H-AL-250X50	53553440	610 × 610 × 150	600	ISO 45 H	H14	≥ 99.995
SF14-A-0610X0915X150X05-Z02H-AL-250X50	53447038	610 × 915 × 150	900	ISO 45 H	H14	≥ 99.995
SF14-A-0610X1220X150X05-Z02H-AL-250X50	53570657	610 × 1,220 × 150	1,200	ISO 45 H	H14	≥ 99.995

EPA / HEPA / ULPA FILTERS

ACCESSORIES | CEILING AIR OUTLETS | WITH CEILING CONNECTION PROFILE

SPECIFICATIONS	
Outlet housing	Extruded, anodized aluminum frame and deep-drawn plastic plenum made of polystyrene and cast in an airtight configuration, with round connection piece on the side; on request also available with a metal plenum and a connection at the top / side
Diffusor	As vortex flow outlet with adjustable air guide elements in powder-coated steel sheeting (RAL 9010), as a rectangular outlet with fixed-position guide fins in anodized aluminum or painted, as perforated-plate diffusor for low-turbulence displacement flow in anodized aluminum, painted, or stainless steel
Filter elements	Associated filter elements must be ordered separately. The ceiling air outlets are suitable for Viledon® HEPA filters with a 68, 78 or 88 mm deep aluminum frame and a foamed-on seal

Application

Viledon® filter ceiling air outlets are used for intake and recirculating air filtration of cleanrooms and air-conditioning systems with ultra-stringent requirements for clean air quality and sterility, e. g.

- in sophisticated air-conditioning technology (operating theaters / intensive care units in hospitals and medical institutes, labs, pharmacies, sterile rooms, research centers, etc.),
- in highly sensitive industrial processes (pharmaceuticals, biotechnology, chemicals, optics, food and beverage processing, micro-electronics, etc.).

Features and benefits

- The housings feature clamping devices for the filter elements and a port for measuring the raw gas concentration and the operational pressure drop.
- The construction is extremely solid and moisture-resistant.
- Viledon® ceiling air outlets meet all hygiene requirements of the German VDI Guideline 6022 “Hygiene requirements for HVAC systems and units”.
- Easy handling and mounting, thanks to low weight and high twist strength.
- Filter replacement, cleaning and maintenance can be simply performed from the clean air side.

Delivery notes

On request also available with integrated control and stop valve.
Customized dimensions (then with metal plenum) and variants available on request.
Please order suitable filters as a separate item.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × L × D) [mm]	DIMENSIONS OF MATCHING FILTERS (W × L × D) [mm]	DIFFUSOR	DIFFUSOR MATERIAL
SFDLA-CA-0380x0380x355-EV-0-200-0-T	53425088	380 × 380 × 355	305 × 305 × 68 / 78 / 88	Vortex flow outlet	Powder-coated steel (RAL 9010)
SFDLA-CA-0380x0685x380-LA-0-200-0-0	53424466	380 × 685 × 380	305 × 610 × 68 / 78 / 88	Rectangular outlet	Anodized aluminum
SFDLA-CA-0532x0532x390-LV-0-250-0-0	53427694	532 × 532 × 390	457 × 457 × 68 / 78 / 88	Rectangular outlet	Powder-coated steel (RAL 9010)
SFDLA-CA-0620x0620x410-EV-0-250-0-0	53479807	620 × 620 × 410	545 × 545 × 68 / 78 / 88	Vortex flow outlet	Powder-coated steel (RAL 9010)
SFDLA-CA-0685x0685x420-FX-0-250-0-0	53507123	685 × 685 × 420	610 × 610 × 68 / 78 / 88	Perforated-plate diffusor	Stainless steel
SFDLA-CA-0685x0990x430-LV-Z-250-0-0	53427696	685 × 990 × 430	610 × 915 × 68 / 78 / 88	Rectangular outlet	Powder-coated steel (RAL 9010)
SFDLA-CA-0685x1295x450-FX-0-250-0-0	53424468	685 × 1,295 × 450	610 × 1,220 × 68 / 78 / 88	Perforated-plate diffusor	Stainless steel
SFDLA-CA-0837x0837x450-LV-Z-250-0-0	53427698	837 × 837 × 450	762 × 762 × 68 / 78 / 88	Rectangular outlet	Powder-coated steel (RAL 9010)

GAS PHASE FILTERS

CHEMCONTROL PELLETS / MODULES / SYSTEMS / FILTERS, HM MODULES / SYSTEMS, CHEMWATCH, CARBOPLEAT / DUOPLEAT, ACTIVATED-CARBON CARTRIDGES

Viledon® gas phase filters reliably protect electronic parts and process-critical components against corrosion and its consequences. They permanently remove harmful gases from the air. CarboPleat activated-carbon and DuoPleat combination filters improve indoor air quality, by eliminating or reducing pollutant gases and unwanted odors.

Simply scan the QR code and find out more about gas phase filtration!

GAS PHASE FILTERS

PELLETS | CHEMCONTROL PELLETS

SPECIFICATIONS	
Thermal stability	–20 up to +50 °C
Moisture resistance	10–95 % rel. hum., non-condensing
Face velocity	0.3–2.5 m/s

Application

Viledon® ChemControl Pellets are used in different areas for the prevention of corrosion caused by acidic gases. Special pellets are used for ammonia and chlorine.

- Paper and chemical pulp industrie
- Petrochemistry
- Mining
- Chemical industry
- Pharmaceutical industry
- Computer center
- Labs
- Microelectronics
- Fertilizer

CCP 104

Used for the prevention of corrosion caused by acidic gases. Remove contaminant gases by adsorption, absorption and chemisorption. Contain a minimum of 4 % potassium permanganate to eliminate contaminants via oxidation reaction to inactive solids.

CCP 108

Used for the prevention of corrosion caused by acidic gases. Remove contaminant gases by adsorption, absorption and chemisorption. Contain a minimum of 8 % potassium permanganate to eliminate contaminants via oxidation reaction to inactive solids.

CCP 210

Designed to remove or destroy airborne acidic gases by oxidation. Especially high reactivities and removal capabilities, even at high contaminant concentrations. Contain of potassium permanganate at minimum 10 % by weight.

CCP 310

Ideal for filtration of acidic gases in highly corrosive environments. Very effective in removing hydrogen sulfide, sulfur dioxide and chlorine. Porous structure based on activated alumina impregnated with activated carbon.

Delivery notes

Other ChemControl pellets are available on request – especially custom formulations with impregnations for specific gaseous contaminants.

ARTICLE	BULK DENSITY [kg/m³]	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	REMOVAL CAPACITY FOR H_2S OF OWN WEIGHT [%]	REMOVAL CAPACITY FOR SO_2 OF OWN WEIGHT [%]	REMOVAL CAPACITY FOR CL_2 OF OWN WEIGHT [%]	MOISTURE CONTENT (APPROX.) [%]	CRUSH STRENGTH (MINIMUM) [kg]
CCP 104	800	3.80	7	4		20	2
CCP 108	800	3.80	14	7		20	2
CCP 210	800	3.80	25	12		20	2
CCP 310	725	3.80	15	10	10	20	2

Subject to technical changes.

GAS PHASE FILTERS

PELLETS | CHEMCONTROL PELLETS

SPECIFICATIONS	
Thermal stability	–20 up to +50 °C
Moisture resistance	10 – 95 % rel. hum., non-condensing
Face velocity	0.3 – 2.5 m/s

CCP 510

Used especially for removal of gaseous halogens from airstreams. Capture chlorine, bromine and iodine by adsorption and absorption. Highly porous structure of activated alumina impregnated with active ingredients.

CCP 610

Used for the filtration of airborne contaminant gases e. g. hydrocarbons, VOCs, chlorine and nitrogen dioxide. Consist of virgin activated carbon with very high inner surface area to achieve excellent adsorption capacities. Very low resistance to airflow and long service life.

CCP 810

Blended pellets used for filtration of gaseous contaminants. 50:50 mix of CCP 108 and CCP 610 provides excellent adsorption, absorption and chemisorption.

CCP 830

Blended pellets used for filtration of gaseous contaminants. 50:50 mix of CCP 210 and CCP 610 provides excellent adsorption, absorption and chemisorption.

CCP 840

Blended pellets used for filtration of gaseous contaminants. 50:50 mix of CCP 310 and CCP 610 provides excellent adsorption, absorption and chemisorption.

CCP 903

Specifically used for removal of gaseous ammonia from airstreams. They capture ammonia by means of adsorption and absorption inside their zeolite structure.

Please note:

All application information provided are subject to on-site conditions, specific application requirements and potential alternating effects by combining several ChemControl Pellets in multi-stage units. Please consult your local Viledon® partner for further information.

Delivery notes

Other ChemControl pellets are available on request – especially custom formulations with impregnations for specific gaseous contaminants.

ARTICLE	BULK DENSITY [kg/m³]	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	REMOVAL CAPACITY FOR H_2S OF OWN WEIGHT [%]	REMOVAL CAPACITY FOR SO_2 OF OWN WEIGHT [%]	REMOVAL CAPACITY FOR CL_2 OF OWN WEIGHT [%]	REMOVAL CAPACITY FOR NH_3 OF OWN WEIGHT [%]	MOISTURE CONTENT (APPROX.) [%]	CRUSH STRENGTH (MINIMUM) [kg]
CCP 510	800	3.80			15		15	2
CCP 610	510	4×8					3	2
CCP 810	660	3.80 | 4×8	7	3	5			2
CCP 830	660	3.80 | 4×8	12	6	5			2
CCP 840	620	3.80 | 4×8	12	6	10			2
CCP 903	900	8				10		3

GAS PHASE FILTERS

MODULES | CHEMCONTROL MODULES

SPECIFICATIONS	
Adsorption medium	e. g. ChemControl Pellets
Operating temperature	< 50 °C
Thermal stability (plastic)	120 °C
Recommended humidity	< 60 % rel. hum.
Frame	Plastic, black
Removable caps	Plastic, black

Applications

Viledon® ChemControl Modules are the rugged plastic housings that contain our chemical filtration pellets. They come in a range of four sizes to suit all applications and are designed for easy handling and replacement. They can be supplied pre-filled, directly from our production facilities, or refilled via their easy-access removable caps.

The design of your system will determine which size of module you require. Factors that need to be taken into consideration include available space, airflow volumes, type and concentration of contaminants and desired media life.

Features and benefits

Proven performance and low whole-life costs. As with all Viledon® products, our ChemControl Modules offer excellent airflow performance with low pressure drops. We have designed our modules to minimize maintenance time and reduce whole-life costs.

Delivery notes

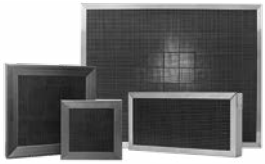
Please consult your local Viledon® partner for further information.

ARTICLE	DIMENSIONS (L × W × D) [mm]	WEIGHT [kg]	DEPTH [mm]	NOMINAL VOLUME FLOW [m³/h]
CCM 1810	598 × 438 × 144	3.4	25.4	600
CCM 1210	598 × 295 × 299	2.9	76	600
CCM 1805	299 × 438 × 144	2	25.4	300
CCM 1205	299 × 295 × 299	1.8	76	300

GAS PHASE FILTERS

MODULES | HM MODULES

SPECIFICATIONS	
Adsorption medium	Versacomb™ media
Operating temperature	< 50 °C
Thermal stability	76 °C
Recommended humidity	< 60 % rel. hum.
Moisture resistance	99 % rel. hum., non-condensing



The Viledon® HM® modules are an assembly of Versacomb™ media housed in either a plastic or metall frame for removing gas-phase contaminants from outdoor or recirculated air. The module is available in nominal depths of one, two, four and six inches as standard. Viledon® HM® modules are designed to fit in a side-access filter rack or a Type 8 filter frame, and are available with or without a header.

Versacomb media is the technology inside Freudenberg's revolutionary Honeycomb Matrix (HM®) activated carbon modules. This media represents the future shape of air purification technology. The media has parallel square channels that pass through the block to provide a pathway for fluid flow. These channels are separated by walls of carbon powder, less than 1 mm thick, that are held in place by ceramic binders. This structure greatly reduces the maximum distance between the carbon and the bulk flow of the process air. The reduced length allows highly efficient interaction between the carbon and the air during operation at elevated velocities.

Applications

Refineries, petrochemical plants, electric centers, paper mills, wastewater treatment plants, museums, archives, hospitals, data centers, break rooms, laboratories, commercial and industrial offices.

Features and benefits

- Provides protection from gas phase contaminants.
- Can be installed in a standard filter track.
- Can be mounted horizontally or vertically.
- Frame options: Stainless steel and plastic are available for most sizes.
- Can be used at face velocities up to 2.5 m/s.
- By weight removal capacity of up to 40 % for H_2S, 4 % for Cl_2, 9 % for Toluene and 13 % for Xylene.
- Easy to install (no need for vacuum trucks).
- Economical and energy-efficient.

Delivery notes

Customized dimensions are available on request.

ARTICLE	DIMENSIONS (L × W × D) [mm]	WEIGHT [kg]
GPF HM 1138P2338V175U2P0	289 × 594 × 44 *	2.2
GPF HM 2338P2338V175U2P0	594 × 594 × 44 *	4.3
GPF HM 2338M2338V380U2P0	594 × 594 × 99 *	9.3
GPF HM 1950M1950V380U2P0	495 × 495 × 99 *	7.7
GPF HM 1369H1369V600U2P2	348 × 348 × 152 *	5.8

* Example module sizes – others available.

GAS PHASE FILTERS

SYSTEMS | CHEMCONTROL PRESSURIZATION UNITS

SPECIFICATIONS	
Housing	All designs are suitable to be placed outdoor and have a high corrosion resistance
Prefiltration	Viledon® Compact pocket filters or Viledon® hydroPack filter cells
Adsorption medium	ChemControl Pellets as deep bed stage or ChemControl Modules filled with ChemControl Pellets
Fine filtration	Viledon® cassette filters
Fan	Energy-saving EC motor, meeting the ErP 2015 directive for increased minimum efficiency ratings or equivalent

Application

Many industrial processes generate contaminant gases that can cause corrosion at different kinds of equipment and have serious consequences like unplanned downtime and high repair costs.

The Viledon® Pressurization Units (DPS & MPS) are multi-stage filtration systems that reliably provide complete protection against corrosion. The system is placed outside the protected area and supplies purified air into it. Hence, the units provide a positive pressure inside the protected area to avoid ingress of unfiltered air. The Viledon® Pressurization Units are designed to cover a wide range of room sizes and various gaseous contaminants which typically occur in paper mills, refineries, smelters, steel and chemical plants. The Viledon® Pressurization Units are equipped with deep beds (DPS units) to handle high concentrations of gases while optimizing media life time or with ChemControl Modules (MPS units) for low and medium gas concentrations. All units contain a Viledon® pre-filtration stage and as well as Viledon® cassette filters to ensure secure fine filtration. The progressive media design, moisture resistance up to 100 % relative humidity (no risk of filter collapse) and high dust holding capacities of the particle filters result in improved energy consumption over generic industry filters due to homogeneous air flow coupled with a low average pressure drop.

Delivery notes

Please consult your local Viledon® partner for further information.

Features and benefits

- Double wall design made of insulated panels, coated inside and outside meeting corrosion resistance category RC5 acc. to DIN55635 / EN10169 and anodized aluminum framework, optionally available in stainless steel or carbon steel single wall constructions.
- High quality assembly ensures a smooth interior surface, thereby minimizing frictional losses and providing a positive air seal.
- Horizontal flow direction.
- Weatherproof designs.
- Inlet available with weather louver, weather hood or flange.
- Units equipped with two deep bed stages or up to 3 stages with ChemControl modules.
- Pre- and fine filter available in different filter classes.
- Discharge flange spigot connection.
- Tapping points for differential pressure measurement of particle filters.
- Optional pressure gauges to allow clear monitoring onsite.
- Control panel in IP65 or equivalent.
- Optional control system to ensure constant flow rate during operation.

ARTICLE	NOMINAL VOLUME FLOW [m³/h]	NUMBER OF CHEMCONTROL MODULE STAGE (ADSORPTION MEDIUM)	HEIGHT [mm]	WIDTH [mm]	LENGTH [mm]
Units with Deep Beds					
DPS-100	700	2	1,000	750	3,000
DPS-150	1,050	2	1,300	750	3,100
DPS-200	1,400	2	1,600	750	3,200
DPS-300	2,100	2	1,600	1,050	3,200
DPS-400	2,800	2	1,600	1,350	3,200
DPS-600	4,200	2	2,200	1,350	3,600
DPS-900	6,300	2	2,200	1,950	3,850
Units with ChemControl Modules					
MPS-100	1,800	2–3	850	750	3,400
MPS-150	2,700	2–3	1,150	750	3,500
MPS-200	3,600	2–3	1,450	750	3,600
MPS-300	5,400	2–3	1,450	1,050	3,800
MPS-400	7,200	2–3	1,450	1,350	4,000
MPS-600	10,800	2–3	2,050	1,350	4,250

GAS PHASE FILTERS

SYSTEMS | CHEMCONTROL RECIRCULATION UNITS

SPECIFICATIONS	
Housing	All designs are suitable to be placed indoor and have a high corrosion resistance
Prefiltration	Viledon® filter cells
Adsorption medium	ChemControl Modules filled with ChemControl Pellets
Fine filtration	Viledon® cassette filters
Fan	Energy-saving EC motor, meeting the ErP 2015 directive for increased minimum efficiency ratings or equivalent

Application

Even minor damage to electric and electronic components caused by corrosive gases can have serious consequences like fault signals up to unplanned downtimes.

Viledon® Recirculation Units (MRS) are multi-stage filtration systems which can be placed directly in the room to be protected to purify the air exactly at the place needed. They have an optimized footprint and handle low and medium concentration of various corrosive gases. The Viledon® Recirculation Units are equipped with a Viledon® pre-filtration stage made of a progressively structured nonwoven of non-breaking synthetic-organic fibers with a stable polypropylene plastic frame, up to two stages of ChemControl Modules and as well as Viledon® cassette filters to ensure secure fine filtration.

The Viledon® Recirculation Units are also available with an additional pressurization function using an admixture of air from outside the room. The proportion between recirculated air and outside air can be adjusted by a manual damper placed at the top of the unit.

Features and benefits

- Double wall design made of insulated panels, coated inside and outside meeting corrosion resistance category RC5 acc. to DIN55635 / EN10169 and anodized aluminum framework, alternatively stainless steel or carbon steel single wall constructions.
- High quality assembly ensures a smooth interior surface, thereby minimizing frictional losses and providing a positive air seal
- Vertical flow direction.
- Units equipped with up to 2 stages of ChemControl modules.
- High quality pre-filter and fine filter stage.
- Fine filter available in different filter classes.
- Tapping points for differential pressure measurement of particle filters.
- Optional pressure gauges to allow clear monitoring onsite.
- Optional manual damper and flange for additional pressurization.
- Optional flanges at inlet or outlet.
- Control panel in IP65 or equivalent.
- Optional control system to ensure constant flow rate during operation.

Delivery notes

Please consult your local Viledon® partner for further information.

ARTICLE	NOMINAL VOLUME FLOW [m³/h]	NUMBER OF CHEMCONTROL MODULE STAGE (ADSORPTION MEDIUM)	HEIGHT [mm]	WIDTH [mm]	DEPTH [mm]
MRS-025	450	1	1,350	450	450
MRS-100	1,800	2	2,300	750	750
MRS-200	3,600	2	2,300	1,350	750

GAS PHASE FILTERS

SYSTEMS | HM UNITS

SPECIFICATIONS	
Housing	Plastisol inner / outer skin panels, with aluminum extrusion frame, alternatively stainless steel constructions available
Prefiltration	e. g. Viledon® pocket filters
Adsorption medium	HM modules
Fine filtration	e. g. Viledon® MaxiPleat cassette filters
Fan	Energy-saving EC motor, meeting the ErP 2015 directive

The Viledon® HM® Unit Series 500HM, 1000HM and 2000HM are complete, skid-mounted systems used to control organic and inorganic gaseous contaminants by activated carbon adsorption and chemical reaction.

They provide highly purified makeup air for pressurizing control rooms to prevent the intrusion of contaminated air.

Each system is pre-engineered and includes a fan, a particulate pre-filter, four passes of activated carbon HM® modules with Versacomb™ media and a particulate final filter.

Application

- Refineries
- Petrochemical plants
- Electric centers
- Paper mills
- Wastewater treatment plants
- Museums
- Archives
- Hospitals
- Data centers
- Break rooms
- Laboratories
- Commercial and industrial offices

Features and benefits

- Versacomb™ media provide protection from corrosive gases e. g. H_2S, SO_2 and Cl_2.
- Suitable for the adsorption of hydrocarbons and VOCs.
- Open honeycomb structure leads to fast reaction kinetics combined with a low pressure drop.
- The media can be engineered to meet specific performance requirements such as pressure drop, maximum face velocity and residence time.

ARTICLE	AIR VOLUME [m³/h]	DIMENSIONS (H × W × D) [mm]	NUMBER OF HM MODULES	WEIGHT, EMPTY [kg]	WEIGHT, WITH MODULES [kg]
500HM	860	2,045 × 730 × 610	4	147	176
1000HM	1,700	1,496 × 1,321 × 1,016	8	293	351
2000HM	3,400	1,591 × 1,778 × 1,143	16	395	511

Subject to technical changes.

GAS PHASE FILTERS

CHEMWATCH | ONLINE MONITORING SYSTEM

SPECIFICATIONS	
Dimensions (W × H × D)	180 × 180 × 85 mm
Total weight	1,100 g
Operating temperature	0 – 50 °C
Relative humidity	10 – 95 %

Application

The ChemWatch Online Monitoring System measures and monitors the corrosivity of air in rooms via copper and silver sensors. Corrosivity is usually caused by acid gases such as H_2S, SO_2, SO_3, Cl_2, Cl_2O, NO_X, or NH_3.

The online monitoring system is suitable to measuring corrosive gases in the range from low ppb to a maximum of 1 to 3 ppm. The sensors are consumed as they measure the corrosivity and thus need to be replaced from time to time. The corrosion rate is determined according to ANSI / ISA-71.04-2013.

Measurements

- Corrosion rate (copper and silver)
- Temperature
- Relative humidity
- Differential pressure (positive pressure)

Features and benefits

- Large color display for clear visibility of all measurements at a glance.
- Optimal data information thanks to graphically visualized G-classification.
- Data transfer via LAN, WiFi or Bluetooth to PC, control station, or Smartphone.
- Large data storage capacity with data history.
- Unsusceptible to vibrations.
- Precise corrosion rates independent from temperature fluctuations.
- All measured values logged directly from the beginning. Easy adjusting of individual measuring tasks – directly at the instrument or via PC.
- CE mark.
- 8 standard languages: English, Chinese, French, German, Italian, Japanese, Portuguese and Spanish (additional languages are available on request).
- The user can create notes – which can be linked to the measured data.
- Metric and imperial units available.

Equipment

- Measuring instrument.
- 1 set of corrosion sensors copper and silver.
- Software for data visualization and analysis (e. g. diagrams).
- SD card for maximum data logging capacity and easy software updates.
- Detailed operating instruction in several languages.
- Power supply unit including adapter set for all common outlets.

Delivery notes

WiFi or Bluetooth modules can be inserted into the instrument as option.

ARTICLE	ARTICLE NUMBER
ChemWatch instrument with new SD card	53581412
ChemWatch Cu sensor	53496606
ChemWatch Ag sensor	53496607

GAS PHASE FILTERS

CARBOPLEAT / DUOPLEAT | FINE DUST

SPECIFICATIONS	
Recommended duty temperature	< 30 °C
Thermal stability	70 °C
Recommended duty humidity	< 60 % rel. hum.

Application

CarboPleat activated-carbon and DuoPleat combi filters improve the air quality in indoor environments and protect both people and sensitive products, processes and lines, by eliminating or reducing environmental pollutants and unwanted odors.

Features and benefits

The activated-carbon media of both filters are fixed in place using a special bonding process, and provide a maximum of active surface area for efficient gas adsorption.

DuoPleat combi filters simultaneously provide particle filtration of ISO class ePM_{10} 80%, thanks to their additional 3-layered high-performance nonwoven on the face side. The large filtering area and the special structure of the filter media involved create not only a particularly high holding capacity and a long operational lifetime, but also a very low pressure drop.

The filter capacities are measured according to ISO 11155-2 and refer to a gas breakthrough of 95 % for toluene and n-butane, and 90 % for SO_2. The concentration of the test gas is 80 ppm, (toluene and n-butane) or 30 ppm (SO_2).

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	FILTER CAPACITY TOLUENE [g]	FILTER CAPACITY SO_2 [g]	FILTER CAPACITY N-BUTANE [g]
						ISO ePM1	ISO ePM2,5	ISO ePM10				
CP 1/1	53538274	592×592×292	3,400	70						753	118	48
CP 5/6	53538276	592×490×292	2,700	70						610	95	40
CP 1/2	53538275	592×287×292	1,500	70						340	55	25
DP85 1/1	53541780	592×592×292	3,400	130	ISO ePM10 80%	43	54	82	M6	551	89	41
DP85 5/6	53541782	592×490×292	2,700	130	ISO ePM10 80%	43	54	82	M6	450	75	35
DP85 1/2	53541781	592×287×292	1,500	130	ISO ePM10 80%	43	54	82	M6	245	40	20

GAS PHASE FILTERS

CHEMCONTROL FILTERS

SPECIFICATIONS	
Recommended duty temperature	< 30 °C
Thermal stability	50 °C
Recommended duty humidity	< 60 % rel. hum.

Application

Viledon® ChemControl Filters of the CCF range provide an optimum solution for integrating chemisorptive filter media into conventional air handling systems.

Features and benefits

The chemisorptive components are mainly based on permanganate impregnated structures with basis weights of 1,000 g per square meter. The permanganate is highly reactive against acidic gases such as hydrogen sulfide and sulfur oxides, formaldehyde, mercaptans and other inorganic contaminant gases. The chemisorptive principle of operation avoids any desorption as it is known with activated carbons which are working on physical adsorption principles. These filters can easily be integrated in air handling units to supply relatively large amounts of make-up air into protected areas such as data centers and microelectronic production facilities. Depending on the concentrations of contaminant gases, the ChemControl Filters can be used in styles with different amounts of chemisorptively active permanganates.

ARTICLE	DIMENSIONS (W × L × D) [mm]	FILTER AREA [m²]	CONTENT OF PERMANGANATE SUBSTRATE [kg]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	SUITABLE FOR GASES
CCF 1000-B-P 1/1	592 × 592 × 292	11	11	3,400	140	H_2S, SO_2, Mercaptane, Formaldehyd
CCF 1000-B-P 1/2	592 × 287 × 292	5.5	5.5	1,700	140	H_2S, SO_2, Mercaptane, Formaldehyd
CCF 1000-P-P 1/1	592 × 592 × 292	8	8	3,400	95	H_2S, SO_2, Mercaptane, Formaldehyd
CCF 1000-P-P 1/2	592 × 287 × 292	4	4.0	1,700	95	H_2S, SO_2, Mercaptane, Formaldehyd

GAS PHASE FILTERS

CHEMCONTROL CANISTERS

SPECIFICATIONS	
Adsorption medium	ChemControl pellets
Canister sheathing	Plastic, galvanized steel or stainless steel
Operating temperature	< 50 °C
Relative humidity	< 95 %
Contact time	> 0.1 s

Application

Viledon® ChemControl canisters are filled with ChemControl pellets and are used in various areas to remove odors and prevent corrosion by acid gases, such as:

- in industrial processes (pulp and paper industry, petrochemicals, chemicals, pharmaceuticals, fertilizers, etc.),
- in sophisticated air-conditioning systems (mining, microelectronics, laboratories, computer centers, airports, archives, offices, restaurants, etc.).

Features and benefits

- Viledon® ChemControl canisters are characterized by excellent airflow performance and low pressure drop.
- High functional dependability due to the dimensionally stable construction of the entire canister.
- Compact single elements with universal three-point bayonet connection for easy handling and installation.
- The canisters can be filled with different Viledon® ChemControl pellets depending on the application and requirement. The thickness of each pellet layer is 26 mm.
- In addition to activated carbon pellets for removing hydrocarbons and VOCs, the canisters can also be filled with special pellets to remove acidic gases, ammonia or chlorine.
- Viledon® canisters are available in two lengths and can be ordered prefilled or for on-site filling. Matching galvanized steel mounting frames can be purchased separately.
- Thanks to the removable lid, the canisters can be refilled and used multiple times.

Delivery notes

Please consult your local Viledon® partner for further information.

ARTICLE	CARTRIDGE FILLING	OPTIMIZED FOR	DIAMETER (OUTER) [mm]	DIAMETER (INNER) [mm]	LENGTH [mm]	NOMINAL VOLUME FLOW [m³/h]
CAN26-104	CCP 104	Acidic gases	145	93	450	162
CAN26-108	CCP 108	Acidic gases	145	93	450	162
CAN26-310	CCP 310	Acidic gases	145	93	450	162
CAN26-510	CCP 510	Chlorine	145	93	450	162
CAN26-660	CCP 660	Odours / organic solvents	145	93	450	162
CAN26-903	CCP 903	Ammonia	145	93	450	162
CAN35-104	CCP 104	Acidic gases	145	93	600	218
CAN35-108	CCP 108	Acidic gases	145	93	600	218
CAN35-310	CCP 310	Acidic gases	145	93	600	218
CAN35-510	CCP 510	Chlorine	145	93	600	218
CAN35-660	CCP 660	Odours / organic solvents	145	93	600	218
CAN35-903	CCP 903	Ammonia	145	93	600	218

GAS PHASE FILTERS

SERVICES | CHEMDETECT COUPON COPPER/SILVER

SPECIFICATIONS	
Dimensions (W × H × D)	102 × 135 × 13 mm
Metal strips	Copper and silver
Measurement time	30 days
Note	Laboratory analysis and corrosion class according to ANSI / ISA-S71.04

Features and benefits

- The Viledon® ChemDetect coupon consists of one silver and one copper strip mounted on a plexiglas card.
- On the plexiglas card a coupon label is attached which is to be filled in with the necessary data.
- The card allows handling the metal strips without touching them and protects from damage for the duration of the environmental monitoring.
- The ChemDetect coupon can be assembled and installed by following simple instructions included.
- Gives information about overall corrosion potential of an environment.
- Exact analysis of corrosion class according to ANSI / ISA-S71.04.
- Basis for the design of ChemControl systems.
- Informative report.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × H × D) [mm]
ChemDetect coupon copper / silver	53458708	102 × 135 × 13

COALESCER

HYDROMAXX, HYDROPACK, HYDROMESH

Coalescing filters offer optimal protection against penetrating water and salt, especially in offshore or coastal environments and in many other locations with high humidity. As prefilters with special drainage properties, they prevent water droplets from passing through the subsequent filter stages.

Simply scan the QR code and find out more about coalescer!

COALESCER

HYDROMAXX POCKET FILTERS | COARSE DUST

SPECIFICATIONS	
Filter medium	Hydrophobic polyester fibers
Recommended final pressure drop	375 Pa
Thermal stability	70 °C
Moisture resistance	100 % rel. hum.
Frame	Polyurethane

Application

Viledon® hydroMaxx reverse pocket filters are the next generation of coalescer filters following the field-proven F 45 R pocket filter range. Offering high operational reliability and cost-efficiency they are ideally suited for intake air prefiltration at coastal, offshore and other high humidity locations of

- gas turbines in power generation and in the oil and gas industry,
- compressors and diesel and gas engines.

Features and benefits

hydroMaxx pocket filters offer **four main benefits** in one filtration concept.

1. The reverse media's hydrophobic, progressive nonwoven composition functions as a reliable coalescer for water droplets and high humidity. This feature enables the water droplets to combine and drain down from the vertical pockets. Thus salt and hydrocarbon ingress will be substantially reduced.
2. Superior dust handling. Thanks to the reverse media concept, dust is not readily stored as in a traditional pocket filter. The hydroMaxx utilizes a self-supporting, integrated cage system to optimize performance.
3. Maximized functional reliability thanks to the leak-proof welded edge configuration of the filter pockets, foam-sealed into a PUR front frame, and dimensionally stable construction of the filter element as a whole.
4. Various 2-in-1 filtration system solutions based on the unique modular clip-on system. This design allows close coupling to either the intermediate or the final filter without any structural modifications.

- The integrated plastic support cage ensures optimum stability as well as easy, timesaving mounting or change of the filter element.
- Pre-installed couplings at the four corners can be used for combination with other pre- or final filters by using the patented Viledon® modular clip-on system.

Accessories

The installation of the hydroMaxx coalescer filter in combination with a Viledon® pocket filter or in single-stage use is easily possible using an adapter plate.

hydroMaxx adapter plate AISI 304 FLAT W1
Article no. 53541191 (for installation in combination with a pocket filter)

hydroMaxx adapter plate SS 25 mm W0
Article no. 53570245 (for single-stage installation)

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W x H x D) [mm]	NUMBER OF POCKETS	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY ISO ePM10 [%]	FILTER CLASS ACC. TO EN 779:2012	INITIAL GRAVIMETRIC ARRESTANCE [%]
HYDROMAXX 0558x0558x0345 W4	53537798	558 x 558 x 345	5	1.8	4,250	65	ISO ePM10 50%	51	G4	73

Subject to technical changes.

COALESCER

HYDROPACK FILTER CELLS | COARSE DUST

SPECIFICATIONS	
Frame material	Plastic
Thermal stability	up to 70 °C
Moisture resistance	up to 100 % rel. hum.

Application

hydroPack MP 45 KTC-W filter cells are used for intake air filtration of

- gas turbines in power generation and in the oil and gas industry,
- compressors and diesel and gas engines.

They extend the useful lifetimes of the downstream high-performance filters.

Features and benefits of hydroPack MP 45 KTC-W

- A water barrier at the bottom of the filters back side reduces intaken water from reaching the clean-air side. This ensures enhanced prefilter lifetime and protection of the downstream filter stage.
- Thanks to coalescing properties ideally suited for applications where filters are exposed to constant waterspray or fogging.
- hydroPack MP 45 KTC-W Filters are fully-potted resulting in a leak-free construction.
- The entire filter element is metal-free and thus non-corroding and fully incinerable.
- The filter cells are moisture-resistant up to 100 % rel. humidity and thermally stable up to 70 °C. The filtermedium is self-extinguishing to DIN 53438 (Fire class F1).
- Besides the standard version without gasket hydroPack filter elements are optionally available with a glued on gasket, either gasket on the downstream side (same side as water barrier) or gasket on the upstream side (opposite side of the water barrier).

hydroPack 0555x0555x096-W10N has couplings for the Viledon® modular system integrated into the frame.

MP 45 KTC-W-0595x0595x096-Z00N-hydroPack is mounted by spring clips on the carrier filter.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W×H×D) [mm]	FRAME	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY ISO EPM10 [%]	FILTER CLASS ACC. TO EN 779:2012	INITIAL GRAVIMETRIC ARRESTANCE [%]
MP 45 KTC-W-0595x0595x096-Z00N-hydroPack	53534826	595×595×96	Plastic	2.2	4,250	70	ISO coarse 65%	45	G4	68
hydroPack 0555x0555x096-W10N	53552693	555×555×96	Plastic	2.0	4,250	80	ISO coarse 65%	46	G4	67

COALESCER

HYDROMESH METAL FILTERS | COARSE DUST

SPECIFICATIONS	
Protection grids	Expanded metal aluminium (AlMg3)
Moisture resistance	up to 100 % rel. hum.

Application

hydroMesh coalescer filters apply for moisture separation used in intake air filtration systems of

- gas turbines for power generation and in the oil and gas industry,
- compressors,
- offshore and coastal installations,
- installations with recurrent high humidity.

Features and benefits

- hydroMesh coalescer are suitable for prefiltration of pulse-jet cartridge systems in very dusty environments that are also characterized by high humidity (e. g. coastal sites in desert areas) or by water ingress.
- They protect the downstream filter stages reliably and remove moisture.
- Can be used as a coarse dust (e. g. sand) prefilter in static filter systems.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × H × D) [mm]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]
hydroMesh Coalescer AlMg3 610x305x25 mm	53541448	610 × 305 × 25	1,700	40
hydroMesh Coalescer AlMg3 610x610x25 mm	53541447	610 × 610 × 25	3,400	40

FILTER CARTRIDGES FOR TURBOMACHINERY

PULSE-JET, DEPTH-LOADING FILTERS

Viledon® pulse-jet filter cartridges and depth-loading filter cartridges achieve optimum results in intake air filtration for turbomachinery. Pulse-jet filter cartridges are, for instance, the ideal solution for pulse-jet systems, where very high dust concentrations and / or fine, pourable dusts predominate.

Simply scan the QR code and find out more about filter cartridges!

FILTER CARTRIDGES FOR TURBOMACHINERY

PULSE-JET

SPECIFICATIONS	
Filter medium	High-performance nonwoven with water-repellent coating made of synthetic microfibers
Recommended final pressure drop	800 Pa
Thermal stability	80 °C
Moisture resistance	100 % rel. hum.
Cover, base and support cages	Steel, galvanized; optional stainless steel
Seal	Polyurethane

Application

Viledon® pulse-jet filter cartridges are used for intake air filtration at gas turbines and turbocompressors. The GTS / GTS10 series is used at both onshore and offshore installations.

With their optimum cleaning characteristics, pulse-jet filter cartridges maximize the lifetime of intake air systems for turbomachinery and reduce the operating costs significantly.

Features and benefits of the GTS filter cartridges

- Innovative high-performance nonwovens with a water-repellent finish and made of synthetic micro-fibers enable GTS filter cartridges to retain their excellent performance features under all climatic duty conditions.
- The filter medium achieves high arrestance performance, large dust holding capacity, a low average pressure drop and high cost-efficiency. The GTS series is particularly well suited for locations with high dust concentrations in the outside air.
- The GTS cartridges in double-cylindrical design are stacked inside each other for transport so that the required space and storage volume is halved. This makes an important contribution to sustainable environmental protection.
- In order to avoid corrosion, the inner and outer support cages, plus the cover and base, are made from galvanized steel or stainless steel. These components are cast in a leakproof configuration, so as to ensure maximized security against dust breakthrough during pulse-jet cleaning.
- Optimum seal with the mounting plate using a foamed-on polyurethane seal.

Delivery notes

Customized variants of GTS cartridges and adapters (bayonet, etc.) plus cover, base and support cage in stainless steel version are available on request.

ARTICLE	ARTICLE NUMBER	OUTER DIAMETER [mm]	CONSTRUCTION HEIGHT [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	ARRESTANCE EFFICIENCY MPPS [%]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	FILTER CLASS ACC. TO EN 1822:2019	FILTER CLASS ACC. TO ASHRAE 52.2:2017	CUT OFF PARTICLE SIZE [µm]
									ISO ePM1	ISO ePM2,5	ISO ePM10				
GTS 324 Y66S0	53573362	327	660	15	1,100	130	–	ISO ePM1 75%	78	83	94	F9	–	MERV14	4
GTS 445 E66S0	53573363	445	660	23	1,400	–	–	ISO ePM1 75%	78	83	94	F9	–	MERV14	4
GTS 324-445 Set (Double -Cyl.)		445 / 327	1,330	38	2,500	115	–	ISO ePM1 75%	78	83	94	F9	–	MERV14	4
GTS M15 324 Y66S0	53585248	327	660	15	1,100	135	–	ISO ePM1 85%	87	91	97	F9	–	MERV15	2
GTS M15 445 E66S0	53585254	445	660	23	1,400	–	–	ISO ePM1 85%	87	91	97	F9	–	MERV15	2
GTS M15 324-445 Set (Double-Cyl.)		445 / 327	1,330	38	2,500	120	–	ISO ePM1 85%	87	91	97	F9	–	MERV15	2
GTS10 324 W66S0	53578771	327	660	–	1,100	150	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1
GTS10 445 E66S0	53585246	445	660	–	1,400	–	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1
GTS10 324-445 Set (Double-Cyl.)		445 / 327	1,330	–	2,500	140	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1

FILTER CARTRIDGES FOR TURBOMACHINERY

PULSE-JET

SPECIFICATIONS	
Filter medium	High-performance nonwoven with water-repellent coating made of synthetic microfibers
Recommended final pressure drop	800 Pa
Thermal stability	80 °C
Moisture resistance	100 % rel. hum.
Cover, base and support cages	Steel, galvanized; optional stainless steel
Seal	Polyurethane

Application

Viledon® pulse-jet filter cartridges are used for intake air filtration at gas turbines and turbocompressors. The GTS10 series is used at both onshore and offshore installations.

With their optimized self-cleaning characteristics, pulse-jet filter cartridges maximize the lifetime of intake air systems for turbomachinery and reduce the operating costs significantly.

We recommend the use of GTS coalescer wrappers for optimized protection against very high moisture ingress.

Features and benefits

- Innovative high-performance nonwovens with a water-repellent finish and made of synthetic micro-fibers enable GTS filter cartridges to retain their excellent performance features under all climatic duty conditions.
- The filter medium achieves high arrestance performance, large dust holding capacity, a low average pressure drop and high cost-efficiency. The GTS series is particularly well suited for locations with high dust concentrations in the outside air.
- GTS filter cartridges have been optimized in terms of filtering area and pleat geometry. The active filtering area remains effective over the entire operational lifetime.
- In order to avoid corrosion, the inner and outer support cages, plus the cover and base, are made from galvanized steel or stainless steel. These components are cast in a leakproof configuration, so as to ensure maximized security against dust breakthrough during pulse-jet cleaning.
- Optimum seal with the mounting plate using a foamed-on polyurethane gasket.

Delivery notes

Customized variants of GTS cartridges and adapters (bayonet, etc.) plus cover, base and support cage in stainless steel version are available on request.

ARTICLE	ARTICLE NUMBER	OUTER DIAMETER [mm]	CONSTRUCTION HEIGHT [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	ARRESTANCE EFFICIENCY MPPS [%]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	FILTER CLASS ACC. TO EN 1822:2019	FILTER CLASS ACC. TO ASHRAE 52.2:2017	CUT OFF PARTICLE SIZE [µm]
									ISO ePM1	ISO ePM2,5	ISO ePM10				
GTS 324 W66S0	53526096	327	660	19	1,100	130	–	ISO ePM1 75%	79	84	95	F9	–	MERV14	4
GTS 445 K66S0	53526099	445 / 327	660	22	1,400	–	–	ISO ePM1 75%	79	84	95	F9	–	MERV14	4
GTS 324-445 Set (Conical-Cyl.)		445 / 327	1,330	41	2,500	135	–	ISO ePM1 75%	79	84	95	F9	–	MERV14	4
GTS M15 324 W66S0	53551357	327	660	19	1,100	135	–	ISO ePM1 85%	88	92	97	F9	–	MERV15	2
GTS M15 445 K66S0	53551358	445 / 327	660	22	1,400	–	–	ISO ePM1 85%	88	92	97	F9	–	MERV15	2
GTS M15 324-445 Set (Conical-Cyl.)		445 / 327	1,330	41	2,500	140	–	ISO ePM1 85%	88	92	97	F9	–	MERV15	2
GTS10 324 W66S0	53578771	327	660	–	1,100	150	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1
GTS10 445 K66S0	53578773	445	660	–	1,400	–	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1
GTS10 324-445 Set (Conical-Cyl.)		445 / 327	1,330	–	2,500	165	89	ISO ePM1 >95%	97	98	99	–	E10	MERV16	1

FILTER CARTRIDGES FOR TURBOMACHINERY

PULSE-JET

SPECIFICATIONS	
Filter medium	Blended synthetic micro-fiber nonwoven with water repellent coating
Recommended final pressure drop	800 Pa
Thermal stability	80 °C
Moisture resistance	100 % rel. hum.
Cover, base and support cages	Steel, galvanized
Seal	Neoprene

Application

Viledon® pulse-jet filter cartridges are used for intake air filtration at gas turbines and turbocompressors. The GTB series is suitable for dry locations.

At locations with very high levels of dust, pulse-jet filter cartridges with their optimum cleaning characteristics maximize the lifetimes of air intake systems for turbomachinery.

Features and benefits of the GTB filter cartridges

- High-strength blended synthetic micro-fiber nonwoven with water repellent coating that allows the cartridge to maintain excellent operational characteristics in most climatic conditions.
- The filter media, ensure high arrestance, high dust holding capacity (prior to self cleaning), low average pressure drop and high cost efficiency. This makes the GTB particularly suitable for predominantly dry locations with high dust concentrations in the ambient air.
- To minimize corrosion and handling damage, the inner and outer support cages and end base end caps are made of galvanized steel or stainless steel. All components are cast together to ensure leakproof operation as well as high security against dust penetration during pulse operation.
- The foamed-on neoprene gasket ensures optimum sealing against the mounting plate.

Delivery notes

GTB cartridges can be obtained in a variety of other dimensions, stainless steel end caps and support cages and can be supplied with installation accessories (washers and nuts).

ARTICLE	ARTICLE NUMBER	OUTER DIAMETER [mm]	CONSTRUCTION HEIGHT [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	FILTER CLASS ACC. TO EN 1822	FILTER CLASS ACC. TO ASHRAE 52.2:2017	CUT OFF PARTICLE SIZE [µm]
								ISO ePM1	ISO ePM2,5	ISO ePM10				
GTB 324 W66S0	53458773	327	660	21	1,100	160	ISO ePM10 70%	28	39	74	M6	–	–	7
GTB 445 K66S0	53408767	445/327	660	25	1,400	–	ISO ePM10 70%	28	39	74	M6	–	–	7
GTB 324-445 Set (Conical-Cyl.)		445/327	1,330	46	2,500	165	ISO ePM10 70%	28	39	74	M6	–	–	7

FILTER CARTRIDGES FOR TURBOMACHINERY

DEPTH-LOADING FILTERS

SPECIFICATIONS	
Filter medium	GTG: synthetic microglass-fiber nonwoven with water repellent coating
Recommended final pressure drop	800 Pa
Maximum permitted operating pressure	> 6,000 Pa
Cover, base and support cages	Galvanized steel
Seal	Polyurethane

Application

Viledon® depth-loading filter cartridges are used in intake air filtration for gas turbines and turbocompressors at both onshore and offshore installations.

Characteristics and pluses of the GTG filter cartridges

- Innovative high strength synthetic micro-glass-fiber nonwoven with water repellent coating.
- Uniform pleat spacing for maximum dust holding capacity.
- The filter medium offers excellent initial efficiency, high dust holding capacity, low pressure drop and high cost efficiency.
- GTG and GTG EPA series of filter classes ISO ePM1 (F9, E10) and E12 are particulary suitable for locations with high fine dust concentrations in the ambient air.
- GTG cartridges have been optimized in terms of filtering area, pleat depth and number of pleats which means the active filtering area remains completely effective over its entire operating lifetime.
- The pleat pack, plus the inner and outer support cages are cast into the steel-galvanized or stainless steel end caps in a leakproof configuration.
- The foamed-on EPDM gasket ensures optimum sealing against the mounting plate.

Delivery notes

GTG filter cartridges can be obtained in a variety of other dimensions, stainless steel end caps and support cages.

ARTICLE	ARTICLE NUMBER	OUTER DIAMETER [mm]	CONSTRUCTION HEIGHT [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	ARRESTANCE EFFICIENCY MPPS [%]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	FILTER CLASS ACC. TO EN 1822	CUT OFF PARTICLE SIZE [µm]
									ISO ePM1	ISO ePM2,5	ISO ePM10			
GTG 324 W66S0	53454436	324	660	18	1,100	120		ISO ePM1 90%	90	93	97	F9	–	2.5
GTG 445 K66S0	53458789	445/324	660	22	1,400	–		ISO ePM1 90%	90	93	97	F9	–	2.5
GTG 324-445 W 66S0-Set		445/324	1,330	40	2,500	135		ISO ePM1 90%	90	93	97	F9	–	2.5
GTG10 324 W66S0	53571128	324	660	20	1,100	130	≥85	ISO ePM1 >95%	99	99	>99	–	E10	1
GTG10 445 K66S0	53571135	445/324	660	25	1,400	95	≥85	ISO ePM1 >95%	99	99	>99	–	E10	1
GTG10 324-445 W 66S0-Set		445/324	1,330	45	2,500	175	≥85	ISO ePM1 >95%	99	99	>99	–	E10	1
GTG12 324 W66S0	53571134	324	660	20	1,100	150	≥99.5					–	E12	
GTG12 445 K66S0	53571138	445/324	660	25	1,400	120	≥99.5					–	E12	
GTG12 324-445 W 66S0-Set		445/324	1,330	45	2,500	220	≥99.5					–	E12	

HIGH TEMPERATURE FILTERS

HT FILTER MATS, HT FILTER PACKS, HITEMP CASSETTE FILTERS, HIPROTEC CASSETTE FILTERS

For air filtration at temperatures above 100 °C up to a maximum of 385 °C, the Viledon® high-temperature filters are the right choice. The silicone-free filter elements meet particularly stringent requirements for air purity, process dependability and cost-efficiency. The pleated filter media are made from special, thermally stable micro-glass-fiber papers.

Simply scan the QR code and find out more about high-temperature filters!

HIGH TEMPERATURE FILTERS

HT FILTER MATS | FINE DUST

SPECIFICATIONS	
Filter medium	LH 243: Filter medium made from ultra-fine, homogeneously spun glass-fibers, Clean air side with special final layer made of glass-fiber nonwoven; LH 244: Filter medium made from ultra-fine homogeneously spun glass-fibers, Clean air side with special final layer made of synthetic nonwoven. LH620: Filter medium made from ultra-fine, homogeneously spun glass-fibers. Clean air side with special final layer made of glass-fiber nonwoven
Recommended final pressure drop	250 Pa
Thermal stability	LH 244: 150 °C; LH 243 | LH 620: 200 °C
Moisture resistance	100 % rel. hum.
Fire class	F1 acc. to DIN 53438

Application

- Filtration of recirculating air in drying booths or drying ovens in surface treatment systems.
- Filtration of air and gases at high temperatures.

Delivery notes

LH 243 and LH 244: Rolls are available up to a maximum of 10 x 1.5 m. LH 620 rolls are available up to a maximum of 2 x 1.5 m. Customized dimensions are available as roll goods or blanks on request.

ARTICLE	THICKNESS APPROX. [mm]	NOMINAL VOLUME FLOW [m³/h×m²]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
					ISO ePM1	ISO ePM2,5	ISO ePM10		
LH 243	20	2,200	125	ISO ePM10 65%	20	31	68	M5	10
LH 244	20	2,200	125	ISO ePM10 65%	20	31	68	M5	10
LH 620	20	2,200	125	ISO ePM10 65%	20	31	68	M5	10

HIGH TEMPERATURE FILTERS

HT FILTER PACKS

SPECIFICATIONS	
Filter medium	LH 350 / LH 1000: Glass-fiber nonwoven framed in expanded aluminum metal, type sticker on the clean air side, clean air side with additional glass-fiber nonwoven; LH 1000 OV: Glass-fiber nonwoven framed in expanded aluminum metal, type sticker on the clean air side; LH 370: Progressively structured PES staple-fiber nonwoven with a scrim on the clean air side in expanded aluminum metal
Recommended final pressure drop	250 Pa
Thermal stability	LH 350: 200 °C; LH 1000 | LH 1000 OV: 300 °C; LH 370: 120 °C
Moisture resistance	100 % rel. hum.
Fire class	F1 acc. to DIN 53438

Application

HT filter packs are used for recirculated air filtration in drying booths and drying ovens for surface treatment systems, and for the filtration of air and gases at high temperatures.

Delivery notes

Standard dimensions: Approx. 480 × 480 × 14 mm.
Delivery unit: 30 pcs. / carton

ARTICLE	DIMENSIONS (W × L) [mm]	WEIGHT [kg]	NOMINAL VOLUME FLOW [m³/h]	DUST HOLDING CAPACITY (AC FINE / 450 Pa) [g]	INITIAL PRESSURE DROP [Pa]	AVERAGE ARRESTANCE [%]
LH 350	480 × 480	0.25	350	40	75	99
LH 370	480 × 480	0.30	900	75	30	99
LH 1000	480 × 480	0.30	1,000	75	85	94
LH 1000 / OV	480 × 480	0.30	1,000	100	60	92

HIGH TEMPERATURE FILTERS

HITEMP CASSETTE FILTERS | CONSTRUCTION DEPTH 292 MM | FINE DUST

SPECIFICATIONS	
Recommended final pressure drop	300 Pa
Thermal stability	at least 260 °C
Frame	25 mm header frame (type HG) or box shape (type BG)
Frame material	Steel sheeting, galvanized | Aluminum extruded section
Seal	Textile glass round-cord seal
Fire class	F1 acc. to 53438

Application

The principal application category for the Viledon® HiTemp high-temperature cassette filters HT 10 and HT 2.5 with an construction depth of 292 mm is air filtration in recirculating air equipment of paint drying processes in the automotive industry. The filters meet particularly stringent requirements for air purity, process dependability and cost-efficiency.

Besides the applications in surface treatment technology, the filters also meet the toughest of quality stipulations for general drying technology.

Features and benefits

- The Viledon® HiTemp high-temperature cassette filters HT 10 and HT 2.5 excel in terms of a particularly high dust holding capacity and very good mechanical strength, even when subjected to inhomogeneous air flows.
- Thanks to low filter resistances, very long operational lifetimes can be achieved, coupled with exceptionally cost-efficient operating characteristics.

Special variants

For unfavorable flow conditions in the system, the filters can be supplied in a stronger version (designation: - reinf).

For temperatures up to 385 °C, the filters are also available with a frame made of aluminum (designation: -H at the end).

For systems with only a confined space at their disposal, the filter elements are also available in an construction depth of 150 mm.

Delivery notes

Customized dimensions, different frame materials, higher thermal stability or a specially reinforced version available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (L×W×D) [mm]	SEAL POSITION	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
								ISO ePM1	ISO ePM2,5	ISO ePM10		
HT10-BG-0610x0610x292-U-L	53555500	610×610×292	Two-way flow possible	15.0	3,400	100	ISO ePM10 75%	30	42	75	M6	8
HT10-BG-0305x0610x292-U-L	53563089	305×610×292	Two-way flow possible	7.5	1,600	110	ISO ePM10 75%	30	42	75	M6	8
HT10-HG-0592x0592x292-2-L	53554668	592×592×292	Clean air side	12.0	3,400	140	ISO ePM10 75%	30	42	75	M6	8
HT10-HG-0592x0592x292-1-L	53563111	592×592×292	Raw air side	12.0	3,400	140	ISO ePM10 75%	30	42	75	M6	8
HT10-HG-0287x0592x292-2-L	53555504	287×592×292	Clean air side	6.0	1,600	150	ISO ePM10 75%	30	42	75	M6	8
HT10-HG-0287x0592x292-1-L	53563073	287×592×292	Raw air side	6.0	1,600	150	ISO ePM10 75%	30	42	75	M6	8
HT2.5-BG-0610x0610x292-U-L	53560536	610×610×292	Two-way flow possible	15.0	3,400	110	ISO ePM2,5 75%	79	84	95	F8	4
HT2.5-BG-0305x0610x292-U-L	53563083	305×610×292	Two-way flow possible	7.5	1,600	120	ISO ePM2,5 75%	79	84	95	F8	4
HT2.5-HG-0592x0592x292-2-L	53563079	592×592×292	Clean air side	12.0	3,400	150	ISO ePM2,5 75%	79	84	95	F8	4
HT2.5-HG-0592x0592x292-1-L	53563080	592×592×292	Raw air side	12.0	3,400	150	ISO ePM2,5 75%	79	84	95	F8	4
HT2.5-HG-0287x0592x292-2-L	53563081	287×592×292	Clean air side	6.0	1,600	160	ISO ePM2,5 75%	79	84	95	F8	4
HT2.5-HG-0287x0592x292-1-L	53563082	287×592×292	Raw air side	6.0	1,600	160	ISO ePM2,5 75%	79	84	95	F8	4
HT10-HG-0592x0592x292x-2-L-REC + HT10-SA-0538x0538x055-U-L-PRE	53573223 + 53589001	592×592×292	Clean air side	14.1	3,400	190	ISO ePM10 85%	59	78	89	M6+M6	8

HIGH TEMPERATURE FILTERS

HIPROTEC CASSETTE FILTERS | CONSTRUCTION DEPTH UP TO 120 MM | FINE DUST

SPECIFICATIONS	
Recommended final pressure drop	300 Pa
Thermal stability	260 °C | 385 °C upon request
Frame	SA: Extruded aluminum profile | EG: Steel sheeting, galvanized
Seal	Textile glass round-cord seal
Montage	Installation on both raw and clean gas side possible
Fire class	F1 acc. to DIN 53438

Application

The principal application category for Viledon® HiProtec cassette filters HT 10, HT 2.5 and HT 1 with construction depths of up to 120 mm is air filtration in paint driers for the automotive industry. The filters are mounted in the booth ceilings or the side channels of the dryer pipes, and meet particularly stringent requirements for air purity, process dependability and cost-efficiency.

Besides the applications in surface treatment technology, the filters also meet the toughest of quality stipulations for general drying technology. Type HT 10 A 480×480 mm (class M6) frequently serves as an upgrade for expanded-metal filter packs and cells.

Features and benefits

- The Viledon® HiProtec cassette filters HT 10, HT 2.5 and HT 1 excel in terms of a high dust holding capacity and very good mechanical sturdiness even when subjected to inhomogeneous air flows.
- Thanks to low filter resistances, very long operational lifetimes can be achieved, coupled with exceptionally cost-efficient operating characteristics.

Special variants

The Duo Safe HT filter (designation: - PRE) is particularly suitable for use in highly critical and heavily loaded HT systems where conventional, single-stage filters allow relatively short service lives only (e.g. in filter stages with a high amount of condensate or in critical, tin-bearing electro coatings). The Duo Safe HT filter is combined with a HiTemp cassette filter, with recessed pleat pack.

Delivery notes

Available in all dimensions commonly encountered on the market. Customized dimensions, filtering areas, frame materials or thermal stability up to 385 °C available on request.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (H×W×D) [mm]	FILTER AREA [m²]	NOMINAL VOLUME FLOW [m³/h]	INITIAL PRESSURE DROP [Pa]	DUST HOLDING CAPACITY (AC FINE/300 Pa) [g]	CLASS TO ISO 16890	PARTICULATE MATTER EFFICIENCY [%]			FILTER CLASS ACC. TO EN 779:2012	CUT OFF PARTICLE SIZE [µm]
								ISO ePM1	ISO ePM2,5	ISO ePM10		
HT10-EG-0480x0480x022-U-L	53527861	480×480×22	1.5	1,000	50	120	ISO ePM10 75%	26	36	75	M6	10
HT10-SA-0490x0490x040-U-L	53563090	490×490×40	2.1	860	35	95	ISO ePM10 75%	26	35	75	M6	8
HT10-SA-0610x0610x055-U-L	53563109	610×610×55	5.9	1,600	30	300	ISO ePM10 75%	22	39	75	M6	8
HT10-SA-0538x0538x055-U-L-PRE	53573229	538×538×55	4.6	3,400	35	250	ISO ePM10 75%	22	39	75	M6	8
HT10-SA-0610x0610x078-U-L	53563103	610×610×78	6.6	1,700	35	335	ISO ePM10 75%	27	36	75	M6	8
HT10-SA-0915x0457x055-U-L	53563110	915×457×55	6.2	1,800	30	335	ISO ePM10 75%	22	39	75	M6	8
HT10-SA-0457x0915x055-U-L	53563426	457×915×55	6.2	1,800	30	335	ISO ePM10 75%	22	39	75	M6	8
HT10-SA-0610x0610x120-U-L	53582633	610×610×120	13.4	1,700	35	400	ISO ePM10 75%	26	36	75	M6	8
HT2.5-SA-0305x0610x055-U-L	53563099	305×610×55	3.0	850	80	135	ISO ePM2,5 75%	70	78	93	F8	4
HT2.5-SA-0305x0610x078-U-L	53563098	305×610×78	2.7	850	85	150	ISO ePM2,5 75%	72	79	93	F8	4
HT2.5-SA-0490x0490x040-U-L	53562208	490×490×40	2.1	860	95	100	ISO ePM2,5 75%	59	76	85	F8	4
HT2.5-SA-0610x0610x055-U-L	53562204	610×610×55	5.9	1,600	80	270	ISO ePM2,5 75%	70	78	93	F8	4
HT2.5-SA-0610x0610x078-U-L	53562193	610×610×78	6.6	1,700	85	300	ISO ePM2,5 75%	72	79	93	F8	4
HT2.5-SA-0915x0457x055-U-L	53562206	915×457×55	6.2	1,800	80	305	ISO ePM2,5 75%	70	78	93	F8	4
HT2.5-SA-0457x0915x055-U-L	53563427	457×915×55	6.2	1,800	80	305	ISO ePM2,5 75%	70	78	93	F8	4
HT2.5-SA-0610x0610x120-U-L	53587053	610×610×120	13.4	1,700	62	300	ISO ePM2,5 75%	80	84	90	F8	4
HT1-SA-0915x0610x078-U-L	53563091	915×610×78	10	2,000	75	340	ISO ePM1,0 75%	72	79	93	F9	3

FILTER ELEMENTS FOR DUST REMOVAL

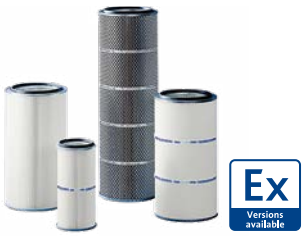
FILTER CARTRIDGES AND ACCESSORIES, FILTER BAGS, FILTER PLATES, PULSEWATCH

We develop customized dust removal concepts for enhancing occupational safety and protecting both the environment and technical systems, as well as for product recovery. Based on a careful analysis, we individually select the appropriate filter medium for the respective dust requirement as well as the appropriate dust removal element, which is variable in terms of shape, overall height, nominal diameter and pleat geometry.

Simply scan the QR code and find out more about filters for dust removal!

FILTER ELEMENTS FOR DUST REMOVAL

FILTER CARTRIDGES | DIN



SPECIFICATIONS	
Filter medium	Polyester Sinus, polyolefin
Thermal stability	up to 80°C
Moisture resistance	up to 100 % rel. hum., washable
Support cage	Integrated support cage
Flange	Galvanized steel, stainless steel version on request

Application

Viledon® DIN filter cartridges are ideally suited for simple retrofitting to most dust removal units in common use and remove problematic dusts in numerous applications. The fields of application are:

- Environmental protection
- Workplace safety
- System protection
- Product recovery

Features and benefits

- Cylindrical filter cartridges for horizontal and vertical installation with integrated interior support cage in various heights.
- Simple installation using a tie-rod or a closure cover.
- All cartridges are fitted with surface media, and can be cleaned using a pulse-jet procedure or rotary nozzles.
- Full-surface thermal bonded nonwovens manufactured in-house, optionally with additional finish for example antistatic, with Freudenberg corrugation (sinus) or nanofiber lining (sinTexx Plus).
- For arresting health-hazard dusts, filter media with on-file IFA certificates are used.
- Filter area and pleat spacing optimally matched to the application concerned.
- Low pressure drop values resulting in high energy efficiency and high suction capacity.
- Minimized compressed-air-consumption for the cleaning routine.
- Long operational lifetimes.
- Low replacement costs.
- Low disposal outlay thanks to long operational lifetimes.
- Antistatic variants are individually tested on conductivity.

Delivery notes

Available in nominal diameters of 200, 327 and 351 mm, and in the standard lengths of 300, 400, 600, 660, 1000 and 1,200 mm. Special lengths up to 1,500 mm and different filter areas are available on request.

Note

The DIN filter cartridges are available as versions for the use in potentially explosive atmospheres. ATEX attestation of conformity for components on request.

ARTICLE	ARTICLE NUMBER	VERSION	FILTER MEDIUM	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	NOMINAL FILTER AREA [m²]	DUST CLASS	IFA CERTIFICATION	CORRUGATION	CONDUCTIVE PRINTING	CHEMICAL RESSISTANCE	AIR PERMEABILITY	STRENGTH	CLEANING ABILITY	FINE DUST QUALIFICATION	FIBROUS DUST COMPATIBILITY
LP 200 S-40-A 20-07	73076409	Standard	PES Sinus	200 / 405	2.0	M	x	x		o	+o	+o	+o	+o	+
LP 327 B-60-A 12-07	73076599	Bajonett	PES Sinus	327 / 605(+50)	12.0	M	x	x		o	+o	+o	+o	+o	o
LP 327 D-60-A 10-07	73076449	open	PES Sinus	327 / 605	10.0	M	x	x		o	+o	+o	+o	+o	o
LP 327 D-60-A 10-16	53588251	open	PES Sinus, AS	327 / 605	10.0	M	x	x	x	o	+o	+o	+o	+o	o
LP 327 S-60-A 10-07	73076459	Standard	PES Sinus	327 / 605	10.0	M	x	x		o	+o	+o	+o	+o	o
LP 327 S-60-A 10-16	53588250	Standard	PES Sinus, AS	327 / 605	10.0	M	x	x	x	o	+o	+o	+o	+o	o
LP 327 S-60-A 10-09	73077136	Standard	PO	327 / 605	10.0	M	x			+	+o	+o	+o	+o	+o
LP 327 S-60-A 10-18	53581302	Standard	PO, AS	327 / 605	10.0	M	x		x	+	+o	+o	+o	+o	+o
LP 327 S-66-A 14-07	73076890	Standard	PES Sinus	327 / 605	14.0	M	x	x		o	+o	+o	+o	+o	o
LP 327 S-66-A 14-16	53588209	Standard	PES Sinus, AS	327 / 605	14.0	M	x	x	x	o	+o	+o	+o	+o	o
LP 327 S-12-A 15-09	73077193	Standard	PO	327 / 1,205	15.0	M	x			+	+o	+o	+o	+o	+o
LP 327 S-12-A 15-18	53581300	Standard	PO, AS	327 / 1,205	15.0	M	x		x	+	+o	+o	+o	+o	+o
LP 327 S-12-A 20-07	73076408	Standard	PES Sinus	327 / 1,205	20.0	M	x	x		o	+o	+o	+o	+o	o
LP 327 S-12-A 20-16	53588226	Standard	PES Sinus, AS	327 / 1,205	20.0	M	x	x	x	o	+o	+o	+o	+o	o
LP 351 D-66-A 12-07	73077047	Standard	PES Sinus	351 / 660	12.0	M	x	x		o	+o	+o	+o	+o	o
LP 351 D-71-A 12-07	73076923	Standard	PES Sinus	351 / 710	12.0	M	x	x		o	+o	+o	+o	+o	o

++ = outstanding | + = very good | +o = good | o = sufficient

FILTER ELEMENTS FOR DUST REMOVAL

FILTER CARTRIDGES | SNAP&FIX

SPECIFICATIONS	
Filter medium	Polyester sinus, polyester nano, polyolefin
Thermal stability	up to 50°C
Moisture resistance	up to 100 % rel. hum., washable
Support cage	Integrated support cage
Flange	PA snap-on hook

Application

Viledon® Snap&Fix filter cartridges have proven themselves in numerous dust removal systems and they are perfectly suitable for the replacement of snap-ring filter bags with mounting plate hole diameters of 152 or 155 mm.

Features and benefits

- The cartridge series snaps into place “properly”, for a perfect axial seal achieved without any further aids like metal sleeves or spring washers.
- Installation: on the clean-gas side without any elaborate screwing work: simply press into place and the Freudenberg snap-on hooks will engage.
- Filter area and pleat spacing optimally matched to the application concerned.
- Full-surface thermal bonded nonwovens manufactured in-house, optionally with additional finish for example antistatic, with Freudenberg corrugation (sinus) or nanofiber lining (sinTexx Plus).
- Low pressure drop values.
- All cartridges are fitted with surface media, and can be cleaned using a pulse-jet procedure or rotary nozzles.
- Minimized compressed-air-consumption for the cleaning routine.
- Low disposal outlay and replacement costs thanks to long operational lifetimes.
- Ideally suited as an alternative to filter bags.
- Antistatic variants are individually tested on conductivity.

Note

- The Snap&Fix filter cartridges are available as versions for the use in potentially explosive atmospheres. ATEX attestation of conformity for components on request.

Delivery notes

Available in different standard lengths of 300 to 1,500 mm.

ARTICLE	ARTICLE NUMBER	VERSION	FILTER MEDIUM	NOMINAL DIAMETER / NOMINAL LENGTH S [mm]	NOMINAL FILTER AREA [m²]	DUST CLASS	IFA CERTIFICATION	CORRUGATION	CONDUCTIVE PRINTING	CHEMICAL RESSISTANCE	AIR PERMEABILITY	STRENGTH	CLEANING ABILITY	FINE DUST QUALIFICATION	FIBROUS DUST COMPATIBILITY
LP 152 B-60-A 21-18	53581279	152 mm	PO, AS	145 / 612	2.1	M	x		x	+	+o	+o	+o	+o	+o
LP 152 B-10-A 27-07	73076962	152 mm	PES Sinus	145 / 1,012	2.7	M	x	x		o	+o	+o	+o	+o	+
LP 152 B-10-A 36-09	73076720	152 mm	PO	145 / 1,012	3.6	M	x			+	+o	+o	+o	+o	+o
LP 152 B-12-A 32-19	73076979	152 mm	PES, AS	145 / 1,212	3.2	L	x		x	o	++	++	+o	o	+o
LP 152 B-12-A 43-07	73076405	152 mm	PES Sinus	145 / 1,212	4.3	M	x	x		o	+o	+o	+o	+o	+o
LP 152 B-12-A 43-09	73076572	152 mm	PO	145 / 1,212	4.3	M	x			+	+o	+o	+o	+o	+o
LP 152 B-12-A 43-18	53581281	152 mm	PO, AS	145 / 1,212	4.3	M	x		x	+	+o	+o	+o	+o	+o
LP 152 B-12-A 54-07	73076405	152 mm	PES Sinus	145 / 1,212	5.4	M	x	x		o	+o	+o	+o	+o	o
LP 152 B-15-A 54-07	73077114	152 mm	PES Sinus	145 / 1,512	4.3	M	x	x		o	+o	+o	+o	+o	+o
LP 155 B-60-A 16-07	73076817	155 mm	PES Sinus	145 / 612	1.6	M	x	x		o	+o	+o	+o	+o	+
LP 155 B-60-A 16-16	53588258	155 mm	PES Sinus, AS	145 / 612	1.6	M	x	x	x	o	+o	+o	+o	+o	+
LP 155 B-60-A 21-16	53588257	155 mm	PES Sinus, AS	145 / 612	2.1	M	x	x	x	o	+o	+o	+o	+o	+o
LP 155 B-10-A 27-07	73076701	155 mm	PES Sinus	145 / 1,012	2.7	M	x	x		o	+o	+o	+o	+o	+
LP 155 B-10-A 27-16	53588281	155 mm	PES Sinus, AS	145 / 1,012	2.7	M	x	x	x	o	+o	+o	+o	+o	+
LP 155 B-15-A 54-07	73076602	155 mm	PES Sinus	145 / 1,512	5.4	M	x	x		o	+o	+o	+o	+o	+o

++ = outstanding | + = very good | +o = good | o = sufficient

FILTER ELEMENTS FOR DUST REMOVAL

FILTER CARTRIDGES | TWIST&FIX

SPECIFICATIONS	
Filter medium	Polyester Sinus, polyolefin
Thermal stability	up to 60°C
Moisture resistance	up to 100 % rel. hum., washable
Flange	3-hooks, PA injection molding
Support cage	integrated support cage

Application

Viledon® Twist & Fix filter cartridges are used for any kind of difficult dust removal job and remove problematic dusts in numerous applications. The fields of application are:

- Environmental protection, workplace safety, system protection, product recovery

Features and benefits

- Flanges made of glass-fiber-reinforced polyamide.
- Perfect fit of the filter cartridge and protection of the filter medium thanks to centering collar.
- Spacer ribs on both sides at the flange ensure correct installation and an optimum seal to the system's raw-gas compartment.
- Foamed-on gasket on each side – for raw or clean-gas installation.
- Filter area and pleat spacing optimally matched to the application.
- Full-surface thermal bonded nonwovens manufactured in-house, optionally with additional finish for example antistatic, with Freudenberg corrugation (sinus) or nanofiber lining (sinTexx Plus).
- Low pressure drop values.
- Minimized compressed-air-consumption for the cleaning routine.
- Low replacement costs and disposal outlay.
- Application-optimized number of pleats.
- Antistatic variants are individually tested on conductivity.

Delivery notes

Available in nominal diameters of 145, 156, 218 and 324 mm, with standard lengths of 300, 600, 1,000, 1,200 and 1,500 mm. Special lengths up to 1,500 mm and different filter areas as well as with aluminum flange or without hooks (downholder required) are available on request.

Note

The Twist&Fix filter cartridges are available as versions for the use in potentially explosive atmospheres. ATEX attestation of conformity for components on request.

ARTICLE	ARTICLE NUMBER	VERSION	FILTER MEDIUM	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	NOMINAL FILTER AREA [m²]	DUST CLASS	IFA CERTIFICATION	CORRUGATION	CONDUCTIVE PRINTING	CHEMICAL RESSISTANCE	AIR PERMEABILITY	STRENGTH	CLEANING ABILITY	FINE DUST QUALIFICATION	FIBROUS DUST COMPATIBILITY
LP 145 G-30-B 10-07	73076421	3-hooks, PA	PES Sinus	145 / 312	1	M	x	x		o	+o	+o	+o	+o	+o
LP 145 G-30-B 10-16	53588217	3-hooks, PA	PES Sinus, AS	145 / 312	1	M	x	x	x	o	+o	+o	+o	+o	+o
LP 145 G-30-A 10-20	73076400	3-hooks, PA	PES	145 / 312	1	L	x			o	++	++	+o	o	o
LP 145 G-60-A 16-07	73076544	3-hooks, PA	PES Sinus	145 / 612	1.6	M	x	x		o	+o	+o	+o	+o	+
LP 145 G-60-A 21-07	73076413	3-hooks, PA	PES Sinus	145 / 612	2.1	M	x	x		o	+o	+o	+o	+o	+o
LP 145 G-60-A 21-09	73077320	3-hooks, PA	PO	145 / 612	2.1	M	x			+	+o	+o	+o	+o	+o
LP 145 G-60-A 21-20	73076389	3-hooks, PA	PES	145 / 612	2.1	M	x			o	++	++	+o	o	o
LP 145 G-60-A 27-07	73076610	3-hooks, PA	PES Sinus	145 / 612	2.7	M	x	x		o	+o	+o	+o	+o	o
LP 145 G-12-A 43-07	53564497	3-hooks, PA	PES Sinus	145 / 1,212	4.3	M	x	x		o	+o	+o	+o	+o	+o
LP 145 G-12-A 43-19	73076587	3-hooks, PA	PES, AS	145 / 1,212	4.3	L	x		x	o	++	++	+o	o	o
LP 145 G-12-A 43-20	73076576	3-hooks, PA	PES	145 / 1,212	4.3	L	x			o	++	++	+o	o	o
LP 156 G-12-A 43-07	73076702	3-hooks, PA	PES Sinus	156 / 1,212	4.3	M	x	x		o	+o	+o	+o	+o	+o
LP 218 G-10-A 50-07	73076432	3-hooks, PA	PES Sinus	218 / 1,012	5.0	M	x	x		o	+o	+o	+o	+o	+
LP 218 G-10-A 50-16	53588279	3-hooks, PA	PES Sinus, AS	218 / 1,012	5.0	M	x	x	x	o	+o	+o	+o	+o	+
LP 218 G-10-A 50-09	73076369	3-hooks, PA	PO	218 / 1,012	5.0	M	x			+	+o	+o	+o	+o	+
LP 218 G-10-A 50-18	53581284	3-hooks, PA	PO, AS	218 / 1,012	5.0	M	x		x	+	+o	+o	+o	+o	+
LP 324 F-60-A 12-07	73076724	no hooks, PA	PES Sinus	324 / 612	12.0	M	x	x		o	+o	+o	+o	+o	o
LP 324 F-12-A 20-07	73076626	no hooks, PA	PES Sinus	324 / 1,212	20.0	M	x	x		o	+o	+o	+o	+o	o
LP 324 G-60-A 10-07	73076427	3-hooks, PA	PES Sinus	324 / 612	10.0	M	x	x		o	+o	+o	+o	+o	o
LP 324 G-10-A 13-07	73076399	3-hooks, PA	PES Sinus	324 / 1,012	13.0	M	x	x		o	+o	+o	+o	+o	+o
LP 324 G-12-A 15-07	73076414	3-hooks, PA	PES Sinus	324 / 1,212	15.0	M	x	x		o	+o	+o	+o	+o	+o
LP 324 G-15-A 19-07	73076417	3-hooks, PA	PES Sinus	324 / 1,512	19.0	M	x	x		o	+o	+o	+o	+o	+o
LP 324 G-15-A 31-07	73076619	3-hooks, PA	PES Sinus	324 / 1,512	31.0	M	x	x		o	+o	+o	+o	+o	o

++ = outstanding | + = very good | +o = good | o = sufficient

FILTER ELEMENTS FOR DUST REMOVAL

FILTER CARTRIDGES | SINTEXX PLUS

SPECIFICATIONS	
Filter medium	sinTexx Plus
Thermal stability	up to 50 °C (Snap&Fix), up to 60 °C (Twist&Fix), up to 80 °C (DIN)
Moisture resistance	up to 100 % rel. hum., washable
Support cage	integrated support cage
Flange	Tie-rod (DIN), 3-hooks PA injection molding (Twist&Fix), snap-on hook (Snap&Fix)

Ex Versions available

Application

sinTexx Plus filter cartridges have been developed specifically for the extraction of difficult-to-handle dust and fine smoke, produced during treatment of metallic and non-metallic materials in welding, cutting, polishing and coating processes.

Features and benefits

- sinTexx Plus is a corrugated polyester medium with a nanofiber lining.
- Improved collection efficiency for fine dust and smoke.
- Reliable compliance with threshold limit values for the workplace.
- Highly efficient thanks to lower flow resistance.
- Reduced consumption levels for power and compressed-air and extended useful lifetime of the filter elements concerned.
- Dispensation of the initial precoating of cartridges otherwise customary. This implies easier handling, less maintenance and the costs can be reduced.

Note

The sinTexx Plus filter cartridges are available as versions for the use in potentially explosive atmospheres. ATEX attestation of conformity for components on request.

ARTICLE	ARTICLE NUMBER	VERSION	FILTER MEDIUM	NOMINAL DIAMETER / NOMINAL LENGTHS [mm]	NOMINAL FILTER AREA [m²]	DUST CLASS	IFA CERTIFICATION	CORRUGATION	CONDUCTIVE PRINTING	NANO-LAYER	CHEMICAL RESISTANCE	AIR PERMEABILITY	STRENGTH	CLEANING ABILITY	FINE DUST QUALIFICATION	FIBROUS DUST COMPATIBILITY
LP 155 B-15-A 54-77	73076328	Snap&Fix, 155 mm	sinTexx Plus	145 / 1,512	5.4	M	x	x		x	o	+	+	++	++	+o
LP 155 B-15-A 54-76	73076361	Snap&Fix, 155 mm	sinTexx Plus, AS	145 / 1,512	5.4	M	x	x	x	x	o	+	+	++	++	+o
LP 156 G-12-A 43-77	73077160	Twist&Fix, 3-hooks, PA	sinTexx Plus	145 / 1,212	4.3	M	x	x		x	o	+	+	++	++	+o
LP 218 G-10-A 50-77	53496861	Twist&Fix, 3-hooks, PA	sinTexx Plus	218 / 1,012	5.0	M	x	x		x	o	+	+	++	++	+
LP 218 G-10-A 50-76	73077039	Twist&Fix, 3-hooks, PA	sinTexx Plus, AS	218 / 1,012	5.0	M	x	x	x	x	o	+	+	++	++	+
LP 324 G-15-A 19-76	73077234	Twist&Fix, 3-hooks, PA	sinTexx Plus, AS	324 / 1,512	19.0	M	x	x	x	x	o	+	+	++	++	+o
LP 324 G-15-A 25-76	73077049	Twist&Fix, 3-hooks, PA	sinTexx Plus, AS	324 / 1,512	25.0	M	x	x	x	x	o	+	+	++	++	o
LP 327 S-60-A 10-77	73076345	DIN standard	sinTexx Plus	327 / 605	10.0	M	x	x		x	o	+	+	++	++	o
LP 327 S-60-A 10-76	73077136	DIN standard	sinTexx Plus, AS	327 / 605	10.0	M	x	x	x	x	o	+	+	++	++	o
LP 327 S-12-A 20-77	73077246	DIN standard	sinTexx Plus	327 / 1,205	20.0	M	x	x		x	o	+	+	++	++	o
LP 327 S-12-A 20-76	73077142	DIN standard	sinTexx Plus, AS	327 / 1,205	20.0	M	x	x	x	x	o	+	+	++	++	o

++ = outstanding | + = very good | +o = good | o = sufficient

FILTER ELEMENTS FOR DUST REMOVAL

ACCESSORIES FOR FILTER CARTRIDGES | PULSE-JET REFLECTORS

Application

Pulse-jet reflectors (PJR) are available as an accessory and are the perfect match for filter cartridges. They improve air pressure behavior during the filtration operation by optimizing the intake of secondary air. When using Viledon® filter cartridges these pulse-jet reflectors can be easily attached with snap hook technology.

Features and benefits

- Unique solution with new snap hook technology. PJR snaps onto the cartridge flange.
- New: LP-A PJR 324-327 now usable for DIN cartridges.
- Easy installation – simply insert them into the cartridge – Click & Fix.
- Can be ordered as an optional accessory.
- Simple retrofitting for Viledon® filter cartridges as well as many other commercially available cartridge models.

Delivery notes

Customized dimensions are available on request.

ARTICLE	ARTICLE NUMBER	CONSTRUCTION HEIGHT [mm]
PJR 145-152-155	53535691	80
PJR 218	53535692	80
PJR 324-327	53535693	80

FILTER ELEMENTS FOR DUST REMOVAL

ACCESSORIES FOR FILTER CARTRIDGES | CARTRIDGE PROTECTION SLEEVE

The CPSs are made from a fully synthetic PES filter medium, that excels particularly in terms of very high air-permeability measuring approx. 3,880 l/m²·s and a mean pore size of approx. 50 µm. Fine particles can penetrate the filter medium, while coarse ones are arrested.

Use

For protecting a filter cartridge against irreversible dust deposits of coarse particles or fibrous dusts in the pleat package.

Application category

Arresting fibrous dusts, for example.

Assembly

The CPSs are secured in accordance with the illustration above with a cable tie underneath the flange of the filter cartridge, and cut off approx. 5–10 cm above the base of the filter cartridge.

Delivery notes

Cartridge protection sleeves are individually matched to each filter system, and have to be inquired for separately in each particular case. Cartridge protection sleeves are available for the following cartridge diameters: 145 mm, 218 mm and 327 mm.

ARTICLE	ARTICLE NUMBER	OPTIMIZED FOR
CPS 145	53372745	LP 145 / LP 152 / LP 155
CPS 218	53373836	LP 218
CPS 324/327	53373838	LP 324 / LP 327

FILTER ELEMENTS FOR DUST REMOVAL

ACCESSORIES FOR FILTER CARTRIDGES | FILTERING AID FHM 1500

Application

In what application categories does precoating with FHM 1500 offer advantages?

- Plasma / flame and laser-cutting of metals
- Welding
- Cleanable “police filter” stages
- Sticky dusts
- Coating processes like spray-galvanizing, spray-aluminizing
- Applications with low raw-gas concentrations

What is precoating?

A suitable filter aid, which is applied immediately after the installation of new filter elements and before the regular commissioning of the filter unit.

When is precoating used?

In the case of low raw gas loading and / or very fine dust particles or sticky dusts.

Why is precoating used?

- To improve cleaning properties
- For lower stable differential pressures

First precoating process with FHM 1500

- Filter aid: LP-A FHM 1500
- Dosage: approx. 10 g / m², once on new filter cartridge
- Precoating duration and process: apply FHM 1500, for at least 15 minutes. Then compact with process dust at a differential pressure from 2,000 to 2,500 Pa. The cleaning process has to be turned off until maximum differential pressure has been reached.

Important: Precoating and compression without cleaning. In accordance with the relevant DIN safety data sheet, wearing a respirator mask of protection level FFP1 is recommended when handling the FHM 1500.

ARTICLE	ARTICLE NUMBER	WEIGHT [kg]
Filter aid 1500	53474681	0.5
Filter aid 1500	53301586	1

FILTER ELEMENTS FOR DUST REMOVAL

ACCESSORIES FOR FILTER CARTRIDGES | ROTARY NOZZLE SYSTEMS

Application

The ROG 600 F-PL and ROG 1200 F-PL rotary nozzle systems ensure effective cleaning of filter cartridges with Ø = 327 mm, H = 602 mm and 1,202 mm, particularly with small pleat spacings.

Features and benefits

- Lasting operational dependability.
- The nozzle vane is mounted on life-time-lubricated ball-bearings encapsulated on both sides.
- Air distributor pipes and lower supporting rib plus stop plate made from high-quality, glass-fiber-reinforced plastic.
- High accuracy of fit of all joints to assure optimum concentricity.
- Quasi-offline cleaning featuring clean-gas-side stop plate operated by compressed air.
- Additional devices for securing the cartridge not required.

ARTICLE	ARTICLE NUMBER	OPERATING PRESSURE [bar]	SOLENOID VALVE + AIR FEEDING LINE ["]	PULSE TIME [s]	AIR-CONSUMPTION PER PULSE [standard liters]
Rotary nozzle 1200 / F-PL / P946713	8928695	2.5 – 3.5	3/4	0.8 – 1.0	160
Rotary nozzle 600 / F-PL / P946712	8925662	3.0 – 4.0	1	1.0 – 1.5	250

FILTER ELEMENTS FOR DUST REMOVAL

ACCESSORIES FOR FILTER CARTRIDGES | DISPLACER UNITS

Features and benefits

- Use of the displacer unit leads to a significant increased cleaning intensity.
- Reduction of compressed air consumption, which significantly reduces operating costs.
- The tank pressure must be restricted to a maximum of 3 bar, or if the maximum tank pressure is retained, the valves must be reduced by one size.

Delivery notes

Available for LP 327 cartridges in 600 mm, 1,000 mm, 1,200 mm and 1,500 mm lengths.

ARTICLE	ARTICLE NUMBER	CONSTRUCTION HEIGHT [mm]
Displacer unit 327 / 0600	53283768	585
Displacer unit 327 / 1000	53283767	985
Displacer unit 327 / 1200	53281463	1,185
Displacer unit 327 / 1500	53283766	1,485

FILTER ELEMENTS FOR DUST REMOVAL

FILTER BAGS

SPECIFICATIONS	
Filter medium	exclusive NEXX media
Thermal stability	Fiber Bags: 80 °C, NEXX Bags: 120 °C
Moisture resistance	up to 100 % rel. hum., water and oil repellent equipment

Filter bags

Viledon® filter bags are available in almost any configuration as a round tube, rectangular tube, bag and in almost all diameters and lengths. Various top and bottom section variants and reinforcements are available. Precoat application with FHM 1500 is just as possible as a permanent additive addition of lime for sticky or oily dusts.

NEXX Bags

- Viledon® NEXX filter bags are the next generation of surface filters, with outstanding advantages compared to conventional filters featuring needlefelt.
- Whether in the pigment, cement or metal industrie, in fact wherever large quantities of dust are encountered, Viledon® NEXX filter bags are what you need.
- Original Viledon® NEXX: This high-quality patented filter medium possesses unique properties for surface filtration.
- Worry-free cleaning: Dusts can be quickly and easily cleaned off the microfiber layer of the Viledon® NEXX filter bags.
- Reduced energy costs: Thanks to optimized filter performance, less compressed air is used during the cleaning process, and the fan's power consumption downsized.
- Low emissions: With Viledon® NEXX, clean-gas values of < 1 mg / m³ can be lastingly achieved.
- In comparison to needlefelts, Viledon® NEXX requires around 50 % less resources to produce. Coupled with the same (or an even higher) filtration performance! This means you're making a proactive contribution to protecting the natural environment and ensuring sustainable resource-economy.
- Application: e. g. fine dusts, pigment, cement and metal industries.

Fiber Bags

- Viledon® Fiber Bags with unique characteristics are particularly suitable for use in the wood and paper industry.
- In particular for extraction of fibrous dust, high arrestance with a low pressure drop can be achieved.
- Significantly longer useful lifetimes than conventional needlefelts.
- Very high resistance to abrasion.
- Viledon® FE 2919 + FE 2920 are made from recycled polyester. So the plastic can be brought back into industrial circulation and is not dumped on a landfill. This is a proactive contribution towards resource-economy.
- Applications: fibrous dusts, wood and paper industries.

Note

The filter bags are available as versions for the use in potentially explosive atmospheres.

Delivery notes

Assembly in various standards on request. The innovative Viledon® filter media are also available as rolled goods: Antistatic (gray-black raster print) or in the standard version (gray).

ARTICLE	FILTER MEDIUM	WEIGHT PER UNIT AREA APPROX. [g / m²]	THICKNESS APPROX. [mm]	MAXIMUM TENSILE FORCE ALONG / ACROSS [N / 5 cm]	DUST CLASS	IFA CERTIFICATION	CONDUCTIVE PRINTING	MICRO FILAMENTS	WATER AND OIL REPELLENCY	AIR PERMEABILITY	CLEANING ABILITY	FINE DUST QUALIFICATION	FIBROUS DUST COMPATIBILITY	THERMAL STABILITY [°C]
NEXX Bags	NEXX (PES + PA)	240	1	700 / 800	M	x		x		+o	+	+	+o	120
NEXX Bags AS	NEXX AS (PES + PA)	250	1	700 / 800	M	(x)	x	x		+o	+	+	+o	120
NEXX Bags WR	NEXX WR (PES + PA)	245	1	700/800	M	(x)		x	x	+o	+	+	+o	120
NEXX Bags AS WR	NEXX AS WR (PES + PA)	255	1	700/800	M	(x)	x	x	x	+o	+	+	+o	120
FIBER Bags	PES	250	1.1	750 / 750	L	x				++	+o	+o	+	80
FIBER Bags AS	PES, AS	260	1.1	750 / 750	L	(x)	x			++	+o	+o	+	80

Subject to technical changes.

++ = outstanding | + = very good | +o = good | o = sufficient

FILTER ELEMENTS FOR DUST REMOVAL

FILTER PLATES

Ex
Versions available

SPECIFICATIONS	
Thermal stability	up to 80 °C
Moisture resistance	up to 100 % rel. hum., washable
Flange	PU injection molding head
Note	Electrostatically conductive filter plates must be properly earthed

Features and benefits

- High-performance filter plates for every application, to ensure compliance with the statutory residual-dust emission values.
- Long lifetime coupled with low maintenance and operating costs.
- Space-saving thanks to compact construction with pleated, synthetic filter media.
- Can be regenerated using all customary cleaning processes and by washing.

Note

The filter plates are available as versions for the use in potentially explosive atmospheres.

Delivery notes

Customized product variants and dimensions available on request.
Please ask our customer service for technical data.

ARTICLE	DIMENSIONS (W×H×D) [mm]	PLEAT DEPTH [mm]	FILTER MEDIUM	FILTER AREA [m²]	NUMBER OF PLEATS
FP 0110 C6014N	515×600×52	15	PES	1.4	40
FP 0110 C6014L	515×600×52	15	PES, AS	1.4	40
FP 0110 C6014C	515×600×52	15	PES + PTFE Membrane	1.4	40
FP 0110 C6014D	515×600×52	15	PES, AS + PTFE Membrane	1.4	40
FP 0110 C1024N	515×1,000×52	15	PES	2.4	40
FP 0110 C1024L	515×1,000×52	15	PES, AS	2.4	40
FP 0110 C1024C	515×1,000×52	15	PES + PTFE Membrane	2.4	40
FP 0110 C1024D	515×1,000×52	15	PES, AS + PTFE Membrane	2.4	40
FP 0800 C6021N	515×600×52	15	PES	2.1	60
FP 0800 C6021L	515×600×52	15	PES, AS	2.1	60
FP 0800 C6021C	515×600×52	15	PES + PTFE Membrane	2.1	60
FP 0800 C6021D	515×600×52	15	PES, AS + PTFE Membrane	2.1	60
FP 1800 C1050N	578×1,045×74	24	PES	5.0	52
FP 1800 C1050L	578×1,045×74	24	PES, AS	5.0	52
FP 1800 C1050C	578×1,045×74	24	PES + PTFE Membrane	5.0	52
FP 1800 C1050D	578×1,045×74	24	PES, AS + PTFE Membrane	5.0	52

FILTER ELEMENTS FOR DUST REMOVAL

FILTER PLATES | DRYPLEAT / DRYPLEAT NANO

SPECIFICATIONS	
Filter medium	Drypleat nano with sinTexx Plus Advanced
Thermal stability	up to 80 °C
Moisture resistance	up to 100 % rel. hum., washable
Flange	PU injection molding head with steel reinforcement
Note	Electrostatically conductive filter plates must be properly earthed

Features and benefits

DryPleat and DryPleat nano filter plates are ideal for high-quality dry separation of paint overspray with limestone. They are silicone free and are available for both clean and raw air side applications.

- With their robust design and excellent cleanability, the filter plates guarantee maximum process reliability for users.
- Thanks to their low flow resistance over a long period of time, users can access larger power reserves of their system with a longer runtime.
- Compared to the DryPleat filter plate, DryPleat nano features high-quality nanofiber technology with a threelayer structure. This enables particularly low air resistance for even longer running times.
- Viledon® DryPleat and DryPleat nano are silicone-free and can easily be handled during filter replacement and installation thanks to their stable design and low weight.

Note

The DryPleat and DryPleat nano filter plates are available as versions for the use in potentially explosive atmospheres. Please get informed in detail about the current certificates of conformity.

Delivery notes

Customized product variants and dimensions available on request.
Please ask our customer service for technical data.

ARTICLE	DIMENSIONS (W×H×D) [mm]	PLEAT DEPTH [mm]	FILTER MEDIUM	FILTER AREA [m²]	NUMBER OF PLEATS
DryPleat 2909	566×1,500×80	23	FE 2834 Polyester + PTFE Membrane antistatic	4.7	36
DryPleat 2909M	566×1,500×80	24	FE 2834 Polyester + PTFE Membrane antistatic	5.0	36
DryPleat nano 2909	566×1,500×80	23	sinTexx Plus advanced antistatic	4.7	36
DryPleat nano 2909M	566×1,500×80	24	sinTexx Plus advanced antistatic	5.0	36
DryPleat nano 0900	1,050×1,500×76	26	sinTexx Plus advanced antistatic	10.9	72
DryPleat nano 0900M	1,050×1,500×62	23	sinTexx Plus advanced antistatic	10.2	72

FILTER ELEMENTS FOR DUST REMOVAL

LEAK DETECTION POWDER

Application

In case of suspected leakages in dedusting plants, the leak detection powder can be used to make the leakage points easy to identify.

Features and benefits

- The leak detection powder is fed into the suction tract while the system is running and extracted instead of the process dust.
- In the event of a leak, noticeable coloring from the powder allows easy optical identification of the leak.
- However, even smaller leaks can be clearly localized with the aid of UV lighting, since even the smallest quantities of the powder can be detected thanks to their fluorescent properties.

ARTICLE	ARTICLE NUMBER	WEIGHT [kg]
Leak detection powder	53430419	5

FILTER ELEMENTS FOR DUST REMOVAL

PULSEWATCH

SPECIFICATIONS	
Dimensions (W × H × D)	260 × 220 × 120 mm
Total weight	2,300 g
Temperature	–20 – 60 °C
Supply voltage	230 / 115 V AC or 48 / 24 V AC (50 – 60 Hz) or 24 V DC

Application

Freudenberg PulseWatch is an individually configurable device for the intelligent control and automation of compressed air cleaning in a dust removal system. By permanently monitoring the differential pressure and immediately adjusting the cleaning parameters, Freudenberg PulseWatch ensures optimum performance of your pulse jet filtration system at all times.

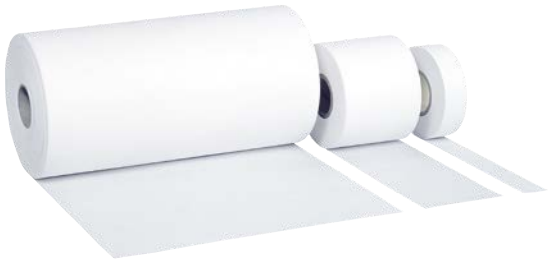
Properties and advantages

- **Intelligent measuring system:** Automatic alignment of the cleaning thresholds to the differential pressure development of the filter elements.
- **Reduced costs:** Lower maintenance costs thanks to significant increase in cartridge life.
- **Increased productivity:** Greater plant availability.
- **Energy savings:** Reduced compressed air consumption and lower fan load.
- **Contribution to occupational safety:** Reduction of pollutant emissions.
- **Increased safety:** Device protection IP65, alarm signal on the LED display and / or potential-free contact. Also available for ATEX zones 21 and 22.
- **Individual settings:** Touch screen display (4.3 inches) in different languages. Individual start settings for measuring intervals and alarm thresholds. Password protection.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × H × D) [mm]	WEIGHT [kg]
PulseWatch 18 DP 230AC-024DC-10-NN-NN	53592502	260 × 220 × 120	2.6

LIQUID FILTRATION

NUTRITEXX, COOLTEXX, PLURATEXX, NOVATEXX



Viledon® sets the standard for industrial liquid filtration in terms of quality, reliability and versatility: with nutritexx for food and beverage filtration, with cooltexx for coolant and lubricant filtration, with pluratexx for oil, urea and fuel filtration and with novatexx as support media for membranes.

Simply scan the QR code and find out more about liquid filtration!

LIQUID FILTRATION

NUTRITEXX | FOOD-GRADE NONWOVENS

SPECIFICATIONS	
Material	Polyester (some with cellulose content), Polypropylene
Bonding	Chemical or thermal
Food-grade testing	Dependent on the filter fleece, (EU) NO 10/2011, FDA 21 CFR

Application

Whether for food and beverage or drinking water filtration: In stringently hygienic areas such as food and beverage or drinking water filtration producers require special filter media which fulfill the various requirements and highest standards – Viledon® nutritexx filter media ensure the perfect combination of hygiene, efficiency and diversity.

Features and benefits

- Good processability for making bags (sewing, welding, die-cutting)
- Long operational lifetime
- Low pressure drop
- High wet strength

Delivery notes

Customized roll dimensions available on request.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 100 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	THICKNESS APPROX. [mm]
nutritexx 2640	100	150	130/220	0.19
nutritexx 2641	100	900	120/75	0.63
nutritexx 2690N	70	1,600	70/50	0.6
nutritexx 2693N	65	1,800	80/60	0.53
nutritexx 2681	30	3,500	20/14	0.25
nutritexx 2007	100	90	95/65	0.74
nutritexx 5021	50	90	40/25	0.35

LIQUID FILTRATION

NUTRITEXX | DRINKING WATER FILTER MATS

SPECIFICATIONS	
Fiber	Polyester
Principal application	Drinking water filtration

Application

nutritexx 2020 is made from 100 % food-grade fibers. It is therefore particularly well suited for the application of ion exchangers and drinking water. Physiologically safe raw materials in conjunction with state-of-the-art production technology guarantee a filter medium that consistently meets the food and beverage industries' stringent requirements in terms of hygiene, efficiency and extractable constituents.

Food-grade testing to:

- 2011 / 10 / EC
- FDA 21 CFR 177.1630
- KTW (Plastic, Drinking Water) Guideline of the UBA (German Federal Environmental Agency)
- DVGW (German Association of the Gas and Water Industry) Worksheet W 270

ARTICLE	DIMENSIONS (W × L) [mm / m]	WEIGHT PER UNIT AREA APPROX. [g / m²]	AIR PERMEABILITY AT 100 Pa [l / (s × m²)]	THICKNESS APPROX. [mm]
nutritexx 2020	1,600 × 20	300	2,700	17

Subject to technical changes.

LIQUID FILTRATION

COOLTEXX | POLYESTER SPUNBONDED NONWOVENS

SPECIFICATIONS	
Material	Polyester endless filaments
Bonding	Thermal
Band filter principle	Pressure | vacuum
Machining process	Rotating | milling | drilling | grinding

Application

Viledon® cooltexx polyester spunbond media have a high mechanical and chemical resistance, are budget products, and on demand we also deliver food grade versions. Due to their excellent tensile strength, they can also be used on vacuum and pressure belt lines, where the filter material is under high mechanical stress.

Features and benefits

- Long lifetime
- Maximized process dependability
- Good filter cake detachment
- Optimum process matching
- Maximized mechanical strength
- Filtration based on sieving effect
- Smooth surface
- High separation efficiency

Delivery notes

Customized lengths available on request.

ARTICLE	FIBER STRUCTURE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 100 Pa [l/(s×m²)]	AIR PERMEABILITY AT 125 Pa [l/(s×m²)]	THICKNESS APPROX. [mm]
cooltexx 6430	Fine fibers	30		3,700	0.15
cooltexx 6450	Fine fibers	50		2,533	0.22
cooltexx 6470	Fine fibers	70		1,806	0.31
cooltexx 6534	Fine fibers point-bonded	34		2,500	0.16
cooltexx 6550	Fine fibers point-bonded	50		1,426	0.23
cooltexx 6570	Fine fibers point-bonded	70		885	0.30
cooltexx 7230	Coarse fibers	30	4,420		0.12
cooltexx 7250	Coarse fibers	50	3,630		0.20
cooltexx 7270	Coarse fibers	70	2,600		0.28
cooltexx H7210	Coarse fibers	100	1,800		0.39

LIQUID FILTRATION

COOLTEXX | POLYPROPYLENE SPUNBONDED NONWOVENS

SPECIFICATIONS	
Material	Polypropylene endless filaments
Bonding	Thermal
Band filter principle	Pressure | vacuum
Machining process	Rotating | milling | drilling | grinding

Application

Viledon® cooltexx polypropylene spunbond media have a high mechanical and chemical resistance. Thanks to their excellent tensile strength, they can also be used on vacuum and pressure belt lines, where the filter material is under high mechanical stress.

Features and benefits

- Adsorption of foreign oil from the emulsion
- High chemical stability
- Good filter cake detachment
- Oleophilic and hydrophobic fibers
- Pure polypropylene
- Smooth surface

Delivery notes

Customized lengths available on request.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 125 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	THICKNESS APPROX. [mm]	FIBER STRUCTURE
cooltexx 3423	23	3,350	45/35	0.23	Fine fibers point-bonded
cooltexx 3440	40	1,550	100/60	0.38	Fine fibers point-bonded
cooltexx 3450	50	900	90/60	0.38	Fine fibers point-bonded
cooltexx 3470	70	750	180/100	0.48	Fine fibers point-bonded

LIQUID FILTRATION

COOLTEXX | CELLULOSE-POLYESTER MEDIA

SPECIFICATIONS	
Material	Cellulose + Polyester
Bonding	Chemical
Band filter principle	Gravitation | pressure | vacuum
Machining process	Grinding | honing | lapping (fine-smoothing)

Application

Viledon® cooltexx filter media with a cellulose content are used predominantly in aqueous solutions, where a low pressure drop is a primary consideration, e. g. with pure gravity systems. The hydrophilic properties of the cellulose ensure good wettability for water, so that despite the fine fibers used and the good particle arrestance only a low pressure drop ensues.

Features and benefits

- Hydrophilic fine-fiber medium with good water wettability
- Long operational lifetime thanks to depth-loading filtration
- Low pressure drop thanks to good wettability
- High separation efficiency, even with fine particles

Delivery notes

Customized lengths available on request.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 100 Pa [l/(s×m²)]	THICKNESS APPROX. [mm]
cooltexx 2652	17	3,220	0.18
cooltexx 2653	23	2,010	0.22
cooltexx 2654	32	1,350	0.26
cooltexx 2662	25	3,930	0.26
cooltexx 2663	37	2,770	0.32
cooltexx 2664	50	1,800	0.38
cooltexx 2666	60	2,150	0.50
cooltexx 2693	70	2,000	0.53

LIQUID FILTRATION

COOLTEXX | DEPTH FILTER

SPECIFICATIONS	
Production process	Wet laid process
Material	Polyester (partly with cellulose content)
Bonding	needled + chemical
Band filter principle	Gravitation | pressure | vacuum
Machining process	Grinding | honing | lapping (fine-smoothing)

Features and benefits

- Particularly long operational lifetime thanks to deep bed filtration
- Low pressure drop
- High separation efficiency, even for fine particles
- High dust holding
- Depth-loading filter – high nonwovens thickness

Delivery notes

Customized lengths available on request.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 100 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	ELONGATION AT MAXIMUM TENSILE FORCE ALONG/ACROSS [%]	THICKNESS APPROX. [mm]
cooltexx 9210N	100	1,000	120/100	12/15	0.7
cooltexx 2689	130	1,000	160/90	13/16	1.0

LIQUID FILTRATION

PLURATEXX | OIL, UREA AND FUEL FILTRATION

SPECIFICATIONS	
Material	Polyester, Polypropylene, Polyamide
Bonding	Thermal

Whether for oil, urea or fuel filtration, Freudenberg Filtration Technologies high-quality filter media allow reliable removal of dirt particles, ensuring motor function and oil quality, and guarantee economic vehicle operation. Viledon® pluratexx filter media fulfill the various requirements of the hydraulic and automotive industry and assure the perfect combination of hygiene, efficiency and diversity.

Features and benefits

- High efficiency thanks to fine fibers
- Long operational lifetime (high dust holding capacity)
- High mechanical strength and resistance to chemicals
- No fiber release, no glass-fibers

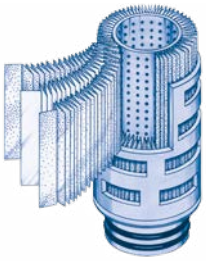
Delivery notes

Customized roll dimensions available on request.

ARTICLE	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 200 Pa [l/(s×m²)]	PORE SIZE: LARGEST PORE/MFP [µm]	PARTICLE SIZE AT 90% ARRESTANCE EFFICIENCY [µm]	PARTICLE SIZE AT 99% ARRESTANCE EFFICIENCY [µm]	DUST HOLDING CAPACITY [g/m²]	THICKNESS APPROX. [mm]
pluratexx 2037	155	400	55/22	15	22	150	0.95
pluatexx 5112	120	345	35/18	15	22	115	0.67
pluratexx 5021	50	200	25/11	7	12	75	0.35
pluratexx 2001 KN	62	100	18/11	5	9	65	0.24

NOVATEXX | DRAINAGE NONWOVENS FOR FILTER CARTRIDGES

SPECIFICATIONS	
Maximum width	2,000 mm
Standard lengths	500 m, 1,000 m



In the production of filter cartridges, Viledon® novatexx spunbonded nonwovens serve as “spacers” between the pleats on the face side and as a drainage layer on the clean side. The performance profiles of the media concerned can be very specifically designed to requirements. The nonwovens involved can be easily pleated together with the membrane without damaging the latter.

In the products of the 20xx series, the use of special bi-component fibers creates particularly high rigidity, which is indispensable for the pleating operation and significantly enhances the stability of the filter cartridge.

The raw materials used meet the requirements laid down for safety in food, beverage, medical and pharmaceutical applications.

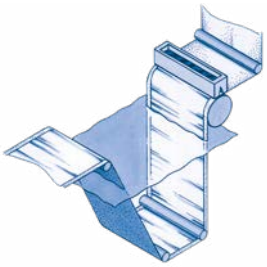
Delivery notes

Customized dimensions are available on request.
Please protect products from exposure to direct sunlight.

ARTICLE	FILTER MEDIUM	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 100 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	ELONGATION AT MAXIMUM TENSILE FORCE ALONG/ACROSS [%]	THICKNESS APPROX. [mm]
novatexx 2010	PP Biko	50	1,300	155/90	60/70	0.24
novatexx 2019	PP Biko	70	1,200	170/90	60/70	0.44
novatexx 2035	PP Biko	30	1,800	85/50	50/50	0.15
novatexx 2036	PP Biko	30	3,900	60/35	60/60	0.23
novatexx 2043	PP Biko	50	1,800	140/70	60/70	0.32
novatexx 6317	PP	17	2,100 [50 Pa]	25/25	50/50	0.21
novatexx 6320	PP	20	1,900 [50 Pa]	35/30	40/40	0.24
novatexx 6340	PP	40	1,300	85/85	70/70	0.40

LIQUID FILTRATION

NOVATEXX | CARRIER MATERIALS FOR FLAT MEMBRANES



SPECIFICATIONS	
Minimum width	15 mm
Standard lengths	500 m, 1,000 m

Viledon® novatexx products for flat membranes stand for superior results in membrane production. The carrier materials are made of synthetic polymers, and are crucial to the mechanical and filtering properties of the filtration membranes. The specially created surface porosity enables the membrane solution to penetrate into the nonwoven, so as to achieve good adhesion results.

There is an option for additionally customizing the products by modifying the surface to suit the particular membrane production process involved.

All polymers used are suitable for contact with food and beverages.

Delivery notes

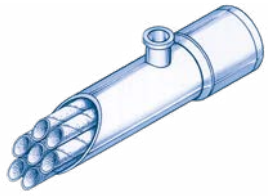
Customized lengths, widths and surface modification available on request.
Please protect products from exposure to direct sunlight.

ARTICLE	FILTER MEDIUM	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 200 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	ELONGATION AT MAXIMUM TENSILE FORCE ALONG/ACROSS [%]	THICKNESS APPROX. [mm]
novatexx 2413	PET	100	300	125/240	10/25	0.19
novatexx 2430	PP/PE	100	150	200/300	65/65	0.22
novatexx 2431	PP/PE	60	500	110/170	60/85	0.14
novatexx 2432	PP/PE	32	700	60/80	50/70	0.11
novatexx 2463	PP/PE	50	2,500	100/85	30/30	0.35
novatexx 2465	PP/PE	30	4,000	65/60	25/30	0.31
novatexx 2470	PP/PE	60	200	200/150	28/28	0.12
novatexx 2471	PP/PE	85	150	270/170	25/30	0.18
novatexx 2473	PP/PE	27	2,100	80/55	20/25	0.11
novatexx 2483	PET/PBT	70	100	170/110	25/30	0.10
novatexx 2484	PET/PBT	85	60	300/200	25/30	0.12
novatexx 2443	PET/PBT	25	3,000	60/35	15/22	0.05

LIQUID FILTRATION

NOVATEXX | CARRIER MATERIALS FOR TUBULAR MEMBRANES

SPECIFICATIONS	
Minimum width	15 mm
Roll length	500 m



Viledon® novatexx products for tubular membranes are very well established in the membrane industry. The products are predominantly made of polyester fibers, and offer a high degree of stability. Combined with specially created surface porosity, novatexx products stand for superlative results in terms of membrane production.

There is an option for additionally customizing the products to suit the particular membrane production process involved, by surface modification or by providing an adhesive-compound finish.

All polymers used are suitable for contact with food and beverages.

Delivery notes

Customized lengths, adhesive-compound coating and surface modification available on request.
Please protect products from exposure to direct sunlight.

ARTICLE	FILTER MEDIUM	WEIGHT PER UNIT AREA APPROX. [g/m²]	AIR PERMEABILITY AT 200 Pa [l/(s×m²)]	MAXIMUM TENSILE FORCE ALONG/ACROSS [N/5 cm]	ELONGATION AT MAXIMUM TENSILE FORCE ALONG/ACROSS [%]	THICKNESS APPROX. [mm]
novatexx 2413	PET	100	300	125/240	10/25	0.19
novatexx 2416	PET	205	6	500/550	25/30	0.25
novatexx 2436	PET	235	4	550/600	20/35	0.27
novatexx 2472	PP/PE	200	90	650/380	25/28	0.42
novatexx 2482	PET/PBT	215	8	800/380	28/28	0.25

ACCESSORIES & SYSTEMS
MORE INFORMATION

ACCESSORIES & SYSTEMS

Freudenberg Filtration Technologies offers high-quality accessories matched to the entire range of filters. These include mounting frames for air filters, clip-on seals for mounting frames and pressure drop measuring instruments. Furthermore we are a supplier for complete systems for example of ventilation units in the food industry.

Simply scan the QR code and find out more about filtration accessories!

SYSTEMS

FOOD AND BEVERAGE INDUSTRY | TANK PRESSURIZATION UNIT

SPECIFICATIONS	
Housing	fully welded stainless steel housing
Prefiltration	e. g. Viledon® MV HSN cassette filter
Fine filtration	e. g. Viledon® MaxiPleat cassette filter

Application

The TPU500 modular fan unit with two filter stages is used to control air quality in tanks and small bottling plants in the food and beverage industry. It is particularly suitable for silo containers with liquid food products and has proven itself especially in the dairy industry.

This is because bacteria, yeasts and moulds have a considerable influence on the life of a product and especially on the shelf life of dairy products. In silos for liquid products and storage tanks with open ventilation slots or areas, microbe-contaminated “dirty” air can come into contact with the product. To prevent this, Freudenberg Filtration Technologies has developed the Tank Pressure Relief System for the food and beverage industry which regulates the air quality in tanks and small filling plants. A contamination-free air blanket over the product in the silo does not guarantee its extended shelf life, but also allows longer storage times and thus optimized production processes and results.

Features and benefits

- The modular construction consists of fully welded stainless steel housing parts. The multi-stage filtration system has a prefilter ISO ePM2,5 80% (F 7) and can be equipped with different final filter stages from filter class E11 to H14 according to customer requirements. Both filters can be offered food-certified and compliant to EC No. 1935 / 2004, EU No. 10 / 2011 and ISO 846:1997.
- The TPU has a total weight of approx. 105 kg and dimensions of 1,659 × 650 × 650 mm (H × W × D, including stabilizing frame); the adjustable frame ensures a stable stand on the tank surface.
- Each unit has a pressure switch and is connected to an external isolator and a controller to ensure constant volume control.
- The air volume maintains the minimum nominal value throughout the life of the filter system. The pressure switch can be set to trigger an alarm or display the filter status on a visual indicator.
- The connection to the closed tank is 200 mm RJT (Ring Joint Type) and can be adjusted via a female thread if required. All available tank connections comply with the standards of the Manufacturers Standardization Society of the Fittings Industry (MSS).

Delivery notes

Please consult your local Viledon® partner for further information.

ARTICLE	AIR VOLUME [m³/h]	DIMENSIONS (H × W × D) [mm]	WEIGHT [kg]
TPU500	500	1,659 × 650 × 650	105

ACCESSORIES

MOUNTING FRAMES

SPECIFICATIONS	
Note	ARV = Mounting frame galvanized; ARE = Mounting frame stainless steel

Design features

- High inherent rigidity thanks to special jointing process and large construction depth.
- Centering guides assure optimum positioning of the filter elements.
- Consistent leakproofing thanks to four friction-locked clamping springs, which are fixed in position in “locking noses”.
- The shape of the springs enables the filters to be easily installed and removed, since the free cross-sectional area of the mounting frame is available in full.
- The boreholes for the screws have been selected so as to ensure that mounting frames of different sizes can be combined without any problems.
- An ultra-flexible, silicone-free rubber clip-on seal with a hollow compartment is supplied with the frame. The clip-on seal is weather-proof and thermally stable within a range of approx. –40 °C to +100 °C, with good resistance to alcohols, lyes and weak acids, and very long-lived.
- Depending on the size of the filter wall, and the stresses acting on it, we recommend providing additional reinforcements as a substructure. M 6 × 8 screws should be used for affixing the frames; if reinforcements are provided, then correspondingly longer screws must be selected.

Application category

Designing new air-conditioning systems and modifying existing ones with variable dimensions.

Use

Supporting Viledon® filters with a top frame, e. g. Compact pocket filters or MaxiPleat cassette filters. Panel filters featuring the standard depth of 48 mm can also be installed.

Execution

Non-corroding stainless steel (material 1.4301) or galvanized steel sheeting (U-St 1203), burr-free, inherently rigid, in four sizes. Operationally dependable clamping spring system with four clamping springs and mechanical locking, including rubber clip-on seal enclosed loose. The mitered corners are rendered airtight with a permanently elastic sealing compound.

ARTICLE	ARTICLE NUMBER	DIMENSIONS (W × H × D) [mm]	SUITABLE FOR FILTERS IN THE DIMENSIONS [mm, approx.]
ARV-LD NF 1/1 A-Galvanized frame with gasket	53373316	610 × 610 × 75	1/1 592 × 592
ARE-LD NF 1/1 A-Stainless steel frame with gasket	53373325	610 × 610 × 75	1/1 592 × 592
ARV-LD NF 5/6 A-Galvanized frame with gasket	53435027	508 × 610 × 75	5/6 490 × 592
ARE-LD NF 5/6 A-Stainless steel frame with gasket	53435039	508 × 610 × 75	5/6 490 × 592
ARV-LD NF 1/2 A-Galvanized frame with gasket	53377509	305 × 610 × 75	1/2 287 × 592
ARE-LD NF 1/2 A-Stainless steel frame with gasket	53377510	305 × 610 × 75	1/2 287 × 592
ARV-LD NF 1/4 A-Galvanized frame with gasket	53435028	305 × 305 × 75	1/4 287 × 287
ARE-LD NF 1/4 A-Stainless steel frame with gasket	53435040	305 × 305 × 75	1/4 287 × 287

ACCESSORIES

SEALS

Clip-on seal

- U-shaped seal profile made of closed-pore EPDM soft rubber with embedded wire clamping band and formed sealing lips plus a hollow compartment made of EPDM cellular rubber; colour: black.
- The seal can be installed without needing any tools simply by pressing it in place by hand.
- The clip-on seal is held in position by the clamping effect of the rubber lips; no adhesives or other attachment aids are required.
- The Viledon® clip-on seal is weatherproof and thermally stable in the range from −40 °C to +100 °C, possesses good resistance to alcohols, lyes and weak acids, and is durable. It is not resistant to concentrated acids, chlorinated hydrocarbons, aromatic hydrocarbons, oil and fuel.
- Good paint-compatibility, silicone-free.

Delivery notes

Other seals available on request.

ARTICLE	ARTICLE NUMBER	LENGTH [m]
CLIP-ON SEAL AR 2.5 running meters	53453283	2.5
CLIP-ON SEAL AR 50 meters roll	53466122	50

MORE INFORMATION

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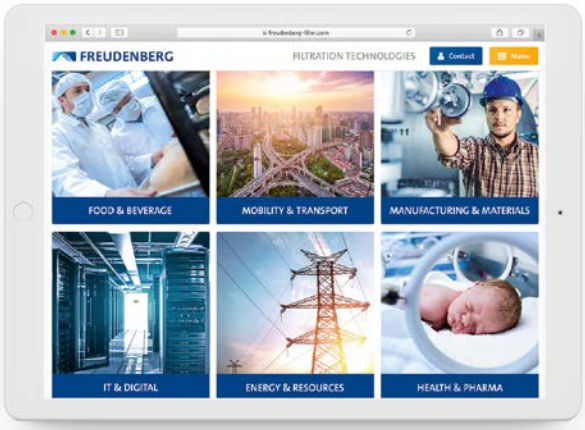

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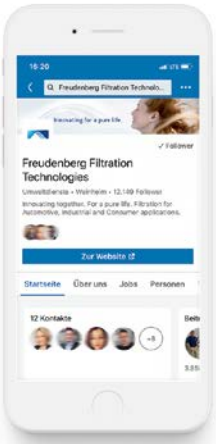

IMPRINT INFORMATION

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Your product catalog editorial team

Notes on technical specifications

Filter groups according to ISO 16890
Measurements according to ISO 16890 are performed exclusively for our Viledon® filters. The results cannot be transferred to other filters.

Filter classes
Groups G to F according to EN 779:2012
Groups E to U according to EN 1822:2019 / ISO 29463

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OVERVIEW OF FILTER CLASSES

Due to the different approaches, it is not possible to directly transfer ISO 16890 to the EN 779 filter classes. The two standards DIN EN 779:2012 and DIN EN 1822:2019 build on each other and are coordinated with each other. However, due to different test conditions between DIN EN 60335:2010 and these two standards, a comparison of the dust classes with the filter classes is only approximately possible.

It is not possible to directly correlate filter classes and dust classes.

We would be pleased to provide you with more information in a personal consultation.

@ iso16890@freudenberg-filter.com

Particulate air filters for general ventilation				
DIN EN ISO 16890-1:2017 Efficiency classification based on the degree of particulate matter separation (ePM) measured at 0.944 m³/s or nominal flow rate				
ISO Coarse ePM_{10} < 50 %	ISO ePM10 ePM_{10} ≥ 50 %	ISO ePM2,5 $ePM_{2,5min}$ ≥ 50 %	ISO ePM1 ePM_{1min} ≥ 50 %	
30 % | 35 % | 40 % | 45 % | 50 %				
40 % | 45 % | 50 % | 55 % | 60 % | 65 %				
60 % | 65 % | 70 % | 75 % | 80 % | 85 %				
80 % | 85 % | 90 % | 95 %	50 % | 55 % | 60 % | 65 % | 70 %			
	60 % | 65 % | 70 % | 75 % | 80 % | 85 %	50 %		
		50 % | 55 % | 60 % | 65 % | 70 % | 75 %	50 % | 55 % | 60 % | 65 %	
			65 % | 70 % | 75 % | 80 % | 85 % | 90 %	
			80 % | 85 % | 90 %	
			90 % | 95 %	
			95 %	

DIN EN ISO 16890:2017

The fractional separation efficiency measurements are carried out on the entire filter element, both when new and after discharge with isopropanol. The average collection efficiency is calculated from these measurements. The separation efficiency measurement is only measured with aerosol (DEHS, KCl), and no longer in connection with dusting. Dusting with AC Fine test dust is performed to determine the collection efficiency of ISO Coarse filters and to optimally determine the dust holding capacity of all ISO ePM_x and ISO Coarse groups. For metrological reasons, the separation efficiencies ePM_1, $ePM_{2.5}$ and ePM_{10} are given for the fine dust fractions 0.3–1.0 µm (ePM_1), 0.3–2.5 µm ($ePM_{2.5}$) and 0.3–10 µm (ePM_{10}). A direct translation of filter classes from the now invalid EN 779:2012 into the DIN EN ISO 16890:2017 filter grouping is not possible.

DIN EN 779:2012

The minimum efficiency is the lowest efficiency determined from the efficiency of the unloaded filter, the initial efficiency and the lowest efficiency that is measured during loading. The separation efficiency is measured with (G1–G4) ASHRAE dust (72 % test dust, fine ISO 12103-1-A2, 23 % molocco soot and 5 % cotton linters) and (Aerosol, M5–F9) DEHS (Di-Ethyl-Hexyl-Sebacat) 0.2–3.0 µm. The basis for the calculation of efficiency was exclusively the particle size 0.4 µm. Other particle sizes were not considered. Since July 2018, EN 779:2012 has been withdrawn. It has been replaced by ISO 16890:2016. In Germany, ISO 16890 is valid as DIN EN ISO 16890:2017.

DIN EN 1822:2019 and ISO 29463:2017

First, the fractional efficiency of the flat sheet filter medium is measured and the particle size at which minimum efficiency occurs (MPPS) is determined. The integral arrestance of the filter element is determined for the minimum efficiency (MPPS) at nominal volume flow rate. The separation efficiency is measured with (Aerosol, E10–U17) DEHS (Di-Ethyl-Hexyl-Sebacat) MPPS 0.1–0.3 µm. Filters of group E cannot and need not be leak-tested for classification purposes; group E filters are rated statistically (ISO 29463-5). Filters of groups H and U shall each be tested integrally and individually for zero leakage. Accordingly, Group H filters must pass a number of selected leak test

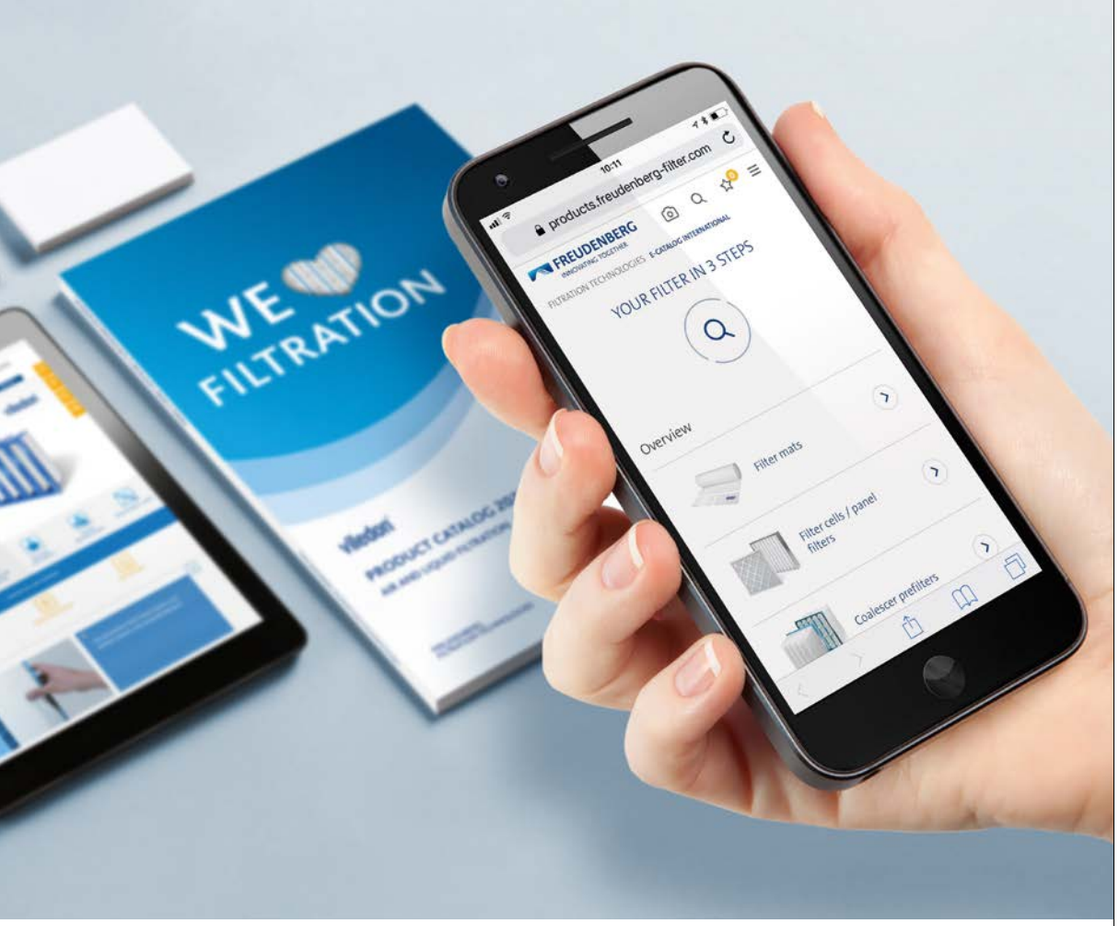
Filter application	Particulate air filters for general ventilation				High efficiency air filters (EPA, HEPA and ULPA)						High efficiency air filters (EPA, HEPA and ULPA)			Dust removal equipment and filter material used for filtering air to be returned to the workplace				
TEST STANDARD	EN 779:2012 Determination of filtration performance at 0.944 m³/s (or nominal volume flow rate)				DIN EN 1822-1:2019 | ISO 29463-1:2017 Evaluation of filter performance at nominal air flow						DIN EN 1822-1:2019 | ISO 29463-1:2017 Filter performance at nominal air flow			DIN EN 60335-2-69:2010 Annex AA				
	Standard is invalid since July 2018																	
	FILTER GROUP	FILTER CLASSES	AVERAGE ARRESTANCE	AVERAGE EFFICIENCY	MINIMUM EFFICIENCY [%]	FILTER GROUP	FILTER CLASSES ACC. TO DIN EN 1822-1:2019	FILTER CLASSES ACC. TO ISO 29463-1:2017	INTEGRAL VALUE OF EFFICIENCY IN THE MPPS [%]	INTEGRAL VALUE OF PENETRATION IN THE MPPS [%]		LOCAL VALUE OF EFFICIENCY IN THE MPPS [%]	LOCAL VALUE OF PENETRATION IN THE MPPS [%]	OUTDATED: DIN EN 1822:1998 (PREDECESSOR DIN 24184)	DUST CLASS	TEST DUST/ AEROSOL	MAXIMUM PENETRATION IN %	SUITABLE FOR DRY, HARMFUL, NON-COMBUSTIBLE DUSTS	OUTDATED: ZH 1/487 (GERMAN EMPLOYERS' LIABILITY INSURANCE)
	G	G 1	$A_m < 65\,\%$	–	–														U
		G 2	$65\,\% \le A_m < 80\,\%$	–	–														S
		G 3	$80\,\% \le A_m < 90\,\%$	–	–														G
		G 4	$90\,\% \le A_m$	–	–														
	M	M 5	–	$40\,\% \le E_m < 60\,\%$	–														
		M 6	–	$60\,\% \le E_m < 80\,\%$	–														
	F	F 7	–	$80\,\% \le E_m < 90\,\%$	35														
		F 8	–	$90\,\% \le E_m < 95\,\%$	55														
		F 9	–	$95\,\% \le E_m$	70														
							E 10	–	≥ 85	≤ 15		–	–	H 10					
						EPA: Efficient Particulate Air filter	E 11	ISO 15 E	≥ 95	≤ 5		–	–	H 11					
								ISO 20 E	≥ 99	≤ 1									
							E 12	ISO 25 E	≥ 99.5	≤ 0.5		–	–	H 12					
								ISO 30 E	≥ 99.9	≤ 0.1									
						HEPA: High Efficiency Particulate Air filter	H 13	ISO 35 H	≥ 99.95	≤ 0.05		≥ 99.75	≤ 0.25	H 13					
								ISO 40 H	≥ 99.99	≤ 0.01		≥ 99.95	≤ 0.05						
							H 14	ISO 45 H	≥ 99.995	≤ 0.005		≥ 99.975	≤ 0.025	H 14					
								ISO 50 U	≥ 99.999	≤ 0.001		≥ 99.995	≤ 0.005						
						ULPA: Ultra Low Penetration Air filter	U 15	ISO 55 U	≥ 99.9995	≤ 0.0005		≥ 99.9975	≤ 0.0025	U 15					
								ISO 60 U	≥ 99.9999	≤ 0.0001		≥ 99.9995	≤ 0.0005						
							U 16	ISO 65 U	≥ 99.99995	≤ 0.00005		≥ 99.99975	≤ 0.00025	U 16					
								ISO 70 U	≥ 99.99999	≤ 0.00001		≥ 99.9999	≤ 0.0001						
							U 17	ISO 75 U	≥ 99.999995	≤ 0.000005		≥ 99.9999	≤ 0.0001	U 17					
															L	200 mg/m³ quartz dust 90 % 0,2 – 2 µm (Stokes)	< 1	Dusts subject to WELs* > 1 mg/m³	U
																			S
																			G
															M		< 0.1	Dusts subject to WELs* ≥ 0,1 mg/m³	C
															H	10 mg/m³ to 80 mg/m³ paraffin oil mist 90 % < 1 µm (Stokes)	< 0.005	Dusts subject to WELs*, carcinogenic aerosols, and pathogen-bearing dusts	K1/K2

*WEL = Workplace Exposure Limit

methods described in ISO 29463-4. Filters of group U are tested exclusively using the scan method (ISO 29463-4). The particle size at which minimum arrestance occurs is 0.1 to 0.2 µm for fibre-glass media, and less than 0.1 µm for PTFE membrane filter media. The essential elements of the international ISO 29463 standard are based on the European standard EN 1822. 2019 saw the adoption of ISO 29463-2 to -5 in the European body of standards, replacing and withdrawing the European standards EN 1822-2 to -5. Only EN 1822-1 has been preserved. Following revision, it was published as DIN EN 1822-1 in September 2019.

DIN EN 60335-2-69:2010 Annex AA

Dust removal equipment (e.g. vacuum cleaners and dust extractors for commercial use) were tested and classified according to ZH 1/487. This purely national test method has been converted into an European standard, which has been the basis for rating dust removal equipment since 1998. In 2010, this standard DIN EN 60335-2-69 was adapted to the basic requirements of EC Machinery Directive 2006/42/EC with the aim to have it listed under this Directive.



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